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<110> BayerHealthcare AG

<120> METHODS AND KITS FOR INVESTIGATING CANCER

<130> BHC-0301001-fc

<150> EP 03022587.4

<151> 2003-10-06

<160> 571

<170> PatentIn version 3.1

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<213> Homo sapiens

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<211> 1892

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<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

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<210> 66

<211> 1340

<212> DNA

<213> Homo sapiens

<400> 66

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<211> 5426

<212> DNA

<213> Homo sapiens

<400> 67

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<210> 68

<211> 1578

<212> DNA

<213> Homo sapiens

<400> 68

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<210> 69

<211> 1501

<212> DNA

<213> Homo sapiens

<400> 69

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<210> 70

<211> 3514

<212> DNA

<213> Homo sapiens

<400> 70

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<210> 71

<211> 1599

<212> DNA

<213> Homo sapiens

<400> 71

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<211> 2068

<212> DNA

<213> Homo sapiens

<220>

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<400> 72

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<210> 73

<211> 1252

<212> DNA

<213> Homo sapiens

<400> 73

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<210> 74

<211> 1658

<212> DNA

<213> Homo sapiens

<400> 74

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<211> 2444

<212> DNA

<213> Homo sapiens

<400> 75

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<211> 3263

<212> DNA

<213> Homo sapiens

<400> 76

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<211> 6452

<212> DNA

<213> Homo sapiens

<400> 77

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<211> 2398

<212> DNA

<213> Homo sapiens

<400> 81

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<211> 2197

<212> DNA

<213> Homo sapiens

<400> 82

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<210> 83

<211> 2201

<212> DNA

<213> Homo sapiens

<400> 83

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<211> 1233

<212> DNA

<213> Homo sapiens

<400> 84

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<212> DNA

<213> Homo sapiens

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<400> 111

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<211> 3017

<212> DNA

<213> Homo sapiens

<400> 112

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3017

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<211> 1922

<212> DNA

<213> Homo sapiens

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<211> 5417

<212> DNA

<213> Homo sapiens

<400> 114

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<210> 121

<211> 3187

<212> DNA

<213> Homo sapiens

<400> 121

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<210> 122

<211> 1992

<212> DNA

<213> Homo sapiens

<400> 122

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<210> 123

<211> 942

<212> DNA

<213> Homo sapiens

<400> 123

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<210> 124

<211> 3969

<212> DNA

<213> Homo sapiens

<400> 124

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<210> 125

<211> 1424

<212> DNA

<213> Homo sapiens

<400> 125

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<210> 126

<211> 2836

<212> DNA

<213> Homo sapiens

<400> 126

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<212> DNA

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<213> Homo sapiens

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<211> 4348

<212> DNA

<213> Homo sapiens

<400> 130

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<211> 1919

<212> DNA

<213> Homo sapiens

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<211> 3206

<212> DNA

<213> Homo sapiens

<400> 132

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<211> 2087

<212> DNA

<213> Homo sapiens

<400> 133

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<210> 134

<211> 1401

<212> DNA

<213> Homo sapiens

<400> 134

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<210> 135

<211> 3737

<212> DNA

<213> Homo sapiens

<400> 135

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<210> 136

<211> 2477

<212> DNA

<213> Homo sapiens

<400> 136

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<210> 137

<211> 1341

<212> DNA

<213> Homo sapiens

<400> 137

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<210> 138

<211> 2449

<212> DNA

<213> Homo sapiens

<400> 138

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<210> 139

<211> 2175

<212> DNA

<213> Homo sapiens

<400> 139

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<211> 4917

<212> DNA

<213> Homo sapiens

<400> 150

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<211> 1804

<212> DNA

<213> Homo sapiens

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<211> 2260

<212> DNA

<213> Homo sapiens

<400> 158

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<210> 159

<211> 1973

<212> DNA

<213> Homo sapiens

<400> 159

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<211> 2722

<212> DNA

<213> Homo sapiens

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<211> 2208

<212> DNA

<213> Homo sapiens

<400> 161

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<211> 2373

<212> DNA

<213> Homo sapiens

<400> 162

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Met Cys Gly Asp Gly Cys Asn Gly Gly Tyr Pro Ala Glu Ala Trp Asn
145     150     155     160
Phe Trp Thr Arg Lys Gly Leu Val Ser Gly Gly Leu Tyr Glu Ser His
165     170     175
Val Gly Cys Arg Pro Tyr Ser Ile Pro Pro Cys Glu His His Val Asn
180     185     190
Gly Ser Arg Pro Pro Cys Thr Gly Glu Gly Asp Thr Pro Lys Cys Ser
195     200     205
Lys Ile Cys Glu Pro Gly Tyr Ser Pro Thr Tyr Lys Gln Asp Lys His
210     215     220
Tyr Gly Tyr Asn Ser Tyr Ser Val Ser Asn Ser Glu Lys Asp Ile Met
225     230     235     240
Ala Glu Ile Tyr Lys Asn Gly Pro Val Glu Gly Ala Phe Ser Val Tyr
245     250     255
Ser Asp Phe Leu Leu Tyr Lys Ser Gly Val Tyr Gln His Val Thr Gly
260     265     270
Glu Met Met Gly Gly His Ala Ile Arg Ile Leu Gly Trp Gly Val Glu
275     280     285
Asn Gly Thr Pro Tyr Trp Leu Val Ala Asn Ser Trp Asn Thr Asp Trp
290     295     300
Gly Asp Asn Gly Phe Phe Lys Ile Leu Arg Gly Gln Asp His Cys Gly
305     310     315     320
Ile Glu Ser Glu Val Val Ala Gly Ile Pro Arg Thr Asp Gln Tyr Trp
325     330     335
Glu Lys Ile

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<210> 167

<211> 286

<212> PRT

<213> Homo sapiens

<400> 167

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Met Arg Leu Leu Pro Arg Leu Leu Leu Leu Leu Leu Val Phe Pro
1      5      10      15

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Ala Thr Val Leu Phe Arg Gly Gly Pro Arg Gly Ser Leu Ala Val Ala
 20 25 30
 Gln Asp Leu Thr Glu Asp Glu Glu Thr Val Glu Asp Ser Ile Ile Glu
 35 40 45
 Asp Glu Asp Asp Glu Ala Glu Val Glu Glu Asp Glu Pro Thr Asp Leu
 50 55 60
 Val Glu Asp Lys Glu Glu Asp Val Ser Gly Glu Pro Glu Ala Ser
 65 70 75 80
 Pro Ser Ala Asp Thr Thr Ile Leu Phe Val Lys Gly Glu Asp Phe Pro
 85 90 95
 Ala Asn Asn Ile Val Lys Phe Leu Val Gly Phe Thr Asn Lys Gly Thr
 100 105 110
 Glu Asp Phe Ile Val Glu Ser Leu Asp Ala Ser Phe Arg Tyr Pro Gln
 115 120 125
 Asp His Gln Phe Tyr Ile Gln Asn Phe Thr Ala Leu Pro Leu Asn Thr
 130 135 140
 Val Val Pro Pro Gln Arg Gln Ala Thr Phe Glu Tyr Ser Phe Ile Pro
 145 150 155 160
 Ala Glu Pro Met Gly Gly Arg Pro Phe Gly Leu Val Ile Asn Leu Asn
 165 170 175
 Tyr Lys Asp Leu Asn Gly Asn Val Phe Gln Asp Ala Val Phe Asn Gln
 180 185 190
 Thr Val Thr Val Ile Glu Arg Glu Asp Gly Leu Asp Gly Glu Thr Ile
 195 200 205
 Phe Met Tyr Met Phe Leu Ala Gly Leu Gly Leu Val Ile Val Gly
 210 215 220
 Leu His Gln Leu Leu Glu Ser Arg Lys Arg Lys Arg Pro Ile Gln Lys
 225 230 235 240
 Val Glu Met Gly Thr Ser Ser Gln Asn Asp Val Asp Met Ser Trp Ile
 245 250 255
 Pro Gln Glu Thr Leu Asn Gln Ile Asn Lys Ala Ser Pro Arg Arg Leu
 260 265 270
 Pro Arg Lys Arg Ala Gln Lys Arg Ser Val Gly Ser Asp Glu
 275 280 285

<210> 168

<211> 433

<212> PRT

<213> Homo sapiens

<400> 168

Met Pro Asp Tyr Leu Gly Ala Asp Gln Arg Lys Thr Lys Glu Asp Glu
 1 5 10 15
 Lys Asp Asp Lys Pro Ile Arg Ala Leu Asp Glu Gly Asp Ile Ala Leu
 20 25 30
 Leu Lys Thr Tyr Gly Gln Ser Thr Tyr Ser Arg Gln Ile Lys Gln Val
 35 40 45
 Glu Asp Asp Ile Gln Gln Leu Lys Lys Ile Asn Glu Leu Thr Gly
 50 55 60
 Ile Lys Glu Ser Asp Thr Gly Leu Ala Pro Pro Ala Leu Trp Asp Leu
 65 70 75 80
 Ala Ala Asp Lys Gln Thr Leu Gln Ser Glu Gln Pro Leu Gln Val Ala
 85 90 95
 Arg Cys Thr Lys Ile Ile Asn Ala Asp Ser Glu Asp Pro Lys Tyr Ile
 100 105 110
 Ile Asn Val Lys Gln Phe Ala Lys Phe Val Val Asp Leu Ser Asp Gln
 115 120 125
 Val Ala Pro Thr Asp Ile Glu Glu Gly Met Arg Val Gly Val Asp Arg
 130 135 140
 Asn Lys Tyr Gln Ile His Ile Pro Leu Pro Pro Lys Ile Asp Pro Thr
 145 150 155 160
 Val Thr Met Met Gln Val Glu Glu Lys Pro Asp Val Thr Tyr Ser Asp
 165 170 175
 Val Gly Gly Cys Lys Glu Gln Ile Glu Lys Leu Arg Glu Val Val Glu
 180 185 190
 Thr Pro Leu Leu His Pro Glu Arg Phe Val Asn Leu Gly Ile Glu Pro
 195 200 205
 Pro Lys Gly Val Leu Leu Phe Gly Pro Pro Gly Thr Gly Lys Thr Leu
 210 215 220
 Cys Ala Arg Ala Val Ala Asn Arg Thr Asp Ala Cys Phe Ile Arg Val

225					230					235				240
Ile	Gly	Ser	Glu	Leu	Val	Gln	Lys	Tyr	Val	Gly	Glu	Gly	Ala	Arg
				245					250					255
Val	Arg	Glu	Leu	Phe	Glu	Met	Ala	Arg	Thr	Lys	Lys	Ala	Cys	Leu
			260					265					270	
Phe	Phe	Asp	Glu	Ile	Asp	Ala	Ile	Gly	Gly	Ala	Arg	Phe	Asp	Asp
		275					280					285		
Ala	Gly	Gly	Asp	Asn	Glu	Val	Gln	Arg	Thr	Met	Leu	Glu	Leu	Ile
	290					295					300			Asn
Gln	Leu	Asp	Gly	Phe	Asp	Pro	Arg	Gly	Asn	Ile	Lys	Val	Leu	Met
305					310				315					320
Thr	Asn	Arg	Pro	Asp	Thr	Leu	Asp	Pro	Ala	Leu	Met	Arg	Pro	Gly
				325					330					335
Leu	Asp	Arg	Lys	Ile	Glu	Phe	Ser	Leu	Pro	Asp	Leu	Glu	Gly	Arg
			340					345					350	Thr
His	Ile	Phe	Lys	Ile	His	Ala	Arg	Ser	Met	Ser	Val	Glu	Arg	Asp
		355					360					365		Ile
Arg	Phe	Glu	Leu	Leu	Ala	Arg	Leu	Cys	Pro	Asn	Ser	Thr	Gly	Ala
	370				375						380			Glu
Ile	Arg	Ser	Val	Cys	Thr	Glu	Ala	Gly	Met	Phe	Ala	Ile	Arg	Ala
385					390					395				400
Arg	Lys	Ile	Ala	Thr	Glu	Lys	Asp	Phe	Leu	Glu	Ala	Val	Asn	Lys
				405					410					415
Ile	Lys	Ser	Tyr	Ala	Lys	Phe	Ser	Ala	Thr	Pro	Arg	Tyr	Met	Thr
			420					425					430	Tyr
Asn														

<210> 169

<211> 529

<212> PRT

<213> Homo sapiens

<400> 169

Met	Ser	Thr	Asn	Glu	Asn	Ala	Asn	Thr	Pro	Ala	Ala	Arg	Leu	His	Arg
1			5					10					15		
Phe	Lys	Asn	Lys	Gly	Lys	Asp	Ser	Thr	Glu	Met	Arg	Arg	Arg	Arg	Ile
		20						25					30		
Glu	Val	Asn	Val	Glu	Leu	Arg	Lys	Ala	Lys	Lys	Asp	Asp	Gln	Met	Leu
		35					40					45			
Lys	Arg	Arg	Asn	Val	Ser	Ser	Phe	Pro	Asp	Asp	Ala	Thr	Ser	Pro	Leu
		50				55					60				
Gln	Glu	Asn	Arg	Asn	Asn	Gln	Gly	Thr	Val	Asn	Trp	Ser	Val	Asp	Asp
65				70					75					80	
Ile	Val	Lys	Gly	Ile	Asn	Ser	Ser	Asn	Val	Glu	Asn	Gln	Leu	Gln	Ala
			85					90					95		
Thr	Gln	Ala	Ala	Arg	Lys	Leu	Leu	Ser	Arg	Glu	Lys	Gln	Pro	Pro	Ile
		100						105					110		
Asp	Asn	Ile	Ile	Arg	Ala	Gly	Leu	Ile	Pro	Lys	Phe	Val	Ser	Phe	Leu
		115					120					125			
Gly	Arg	Thr	Asp	Cys	Ser	Pro	Ile	Gln	Phe	Glu	Ser	Ala	Trp	Ala	Leu
		130				135					140				
Thr	Asn	Ile	Ala	Ser	Gly	Thr	Ser	Glu	Gln	Thr	Lys	Ala	Val	Val	Asp
145				150					155					160	
Gly	Gly	Ala	Ile	Pro	Ala	Phe	Ile	Ser	Leu	Leu	Ala	Ser	Pro	His	Ala
			165					170						175	
His	Ile	Ser	Glu	Gln	Ala	Val	Trp	Ala	Leu	Gly	Asn	Ile	Ala	Gly	Asp
		180						185					190		
Gly	Ser	Val	Phe	Arg	Asp	Leu	Val	Ile	Lys	Tyr	Gly	Ala	Val	Asp	Pro
		195				200						205			
Leu	Leu	Ala	Leu	Leu	Ala	Val	Pro	Asp	Met	Ser	Ser	Leu	Ala	Cys	Gly
	210					215						220			
Tyr	Leu	Arg	Asn	Leu	Thr	Trp	Thr	Leu	Ser	Asn	Leu	Cys	Arg	Asn	Lys
225					230					235				240	
Asn	Pro	Ala	Pro	Pro	Ile	Asp	Ala	Val	Glu	Gln	Ile	Leu	Pro	Thr	Leu
			245					250						255	
Val	Arg	Leu	Leu	His	His	Asp	Asp	Pro	Glu	Val	Leu	Ala	Asp	Thr	Cys
			260					265					270		
Trp	Ala	Ile	Ser	Tyr	Leu	Thr	Asp	Gly	Pro	Asn	Glu	Arg	Ile	Gly	Met
		275					280					285			

Val Val Lys Thr Gly Val Val Pro Gln Leu Val Lys Leu Leu Gly Ala
 290 295 300
 Ser Glu Leu Pro Ile Val Thr Pro Ala Leu Arg Ala Ile Gly Asn Ile
 305 310 315 320
 Val Thr Gly Thr Asp Glu Gln Thr Gln Val Val Ile Asp Ala Gly Ala
 325 330 335
 Leu Ala Val Phe Pro Ser Leu Leu Thr Asn Pro Lys Thr Asn Ile Gln
 340 345 350
 Lys Glu Ala Thr Trp Thr Met Ser Asn Ile Thr Ala Gly Arg Gln Asp
 355 360 365
 Gln Ile Gln Gln Val Val Asn His Gly Leu Val Pro Phe Leu Val Ser
 370 375 380
 Val Leu Ser Lys Ala Asp Phe Lys Thr Gln Lys Glu Ala Val Trp Ala
 385 390 395 400
 Val Thr Asn Tyr Thr Ser Gly Gly Thr Val Glu Gln Ile Val Tyr Leu
 405 410 415
 Val His Cys Gly Ile Ile Glu Pro Leu Met Asn Leu Leu Thr Ala Lys
 420 425 430
 Asp Thr Lys Ile Ile Leu Val Ile Leu Asp Ala Ile Ser Asn Ile Phe
 435 440 445
 Gln Ala Ala Glu Lys Leu Gly Glu Thr Glu Lys Leu Ser Ile Met Ile
 450 455 460
 Glu Glu Cys Gly Gly Leu Asp Lys Ile Glu Ala Leu Gln Asn His Glu
 465 470 475 480
 Asn Glu Ser Val Tyr Lys Ala Ser Leu Ser Leu Ile Glu Lys Tyr Phe
 485 490 495
 Ser Val Glu Glu Glu Glu Asp Gln Asn Val Val Pro Glu Thr Thr Ser
 500 505 510
 Glu Gly Tyr Thr Phe Gln Val Gln Asp Gly Ala Pro Gly Thr Phe Asn
 515 520 525
 Phe

<210> 170
 <211> 971
 <212> PRT
 <213> Homo sapiens
 <400> 170

Met Glu Leu Ser Asp Ala Asn Leu Gln Thr Leu Thr Glu Tyr Leu Lys
 1 5 10 15
 Lys Thr Leu Asp Pro Asp Pro Ala Ile Arg Arg Pro Ala Glu Lys Phe
 20 25 30
 Leu Glu Ser Val Glu Gly Asn Gln Asn Tyr Pro Leu Leu Leu Thr
 35 40 45
 Leu Leu Glu Lys Ser Gln Asp Asn Val Ile Lys Val Cys Ala Ser Val
 50 55 60
 Thr Phe Lys Asn Tyr Ile Lys Arg Asn Trp Arg Ile Val Glu Asp Glu
 65 70 75 80
 Pro Asn Lys Ile Cys Glu Ala Asp Arg Val Ala Ile Lys Ala Asn Ile
 85 90 95
 Val His Leu Met Leu Ser Ser Pro Glu Gln Ile Gln Lys Gln Leu Ser
 100 105 110
 Asp Ala Ile Ser Ile Ile Gly Arg Glu Asp Phe Pro Gln Lys Trp Pro
 115 120 125
 Asp Leu Leu Thr Glu Met Val Asn Arg Phe Gln Ser Gly Asp Phe His
 130 135 140
 Val Ile Asn Gly Val Leu Arg Thr Ala His Ser Leu Phe Lys Arg Tyr
 145 150 155 160
 Arg His Glu Phe Lys Ser Asn Glu Leu Trp Thr Glu Ile Lys Leu Val
 165 170 175
 Leu Asp Ala Phe Ala Leu Pro Leu Thr Asn Leu Phe Lys Ala Thr Ile
 180 185 190
 Glu Leu Cys Ser Thr His Ala Asn Asp Ala Ser Ala Leu Arg Ile Leu
 195 200 205
 Phe Ser Ser Leu Ile Leu Ile Ser Lys Leu Phe Tyr Trp Ser Leu Asn Phe
 210 215 220
 Gln Asp Leu Pro Glu Phe Phe Glu Asp Asn Met Glu Thr Trp Met Asn
 225 230 235 240
 Asn Phe His Thr Leu Leu Thr Leu Asp Asn Lys Leu Leu Gln Thr Asp

- 194 -

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<210> 171
<211> 184
<212> PRT
<213> Homo sapiens
<400> 171
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<210> 172
<211> 514
<212> PRT
<213> Homo sapiens
<400> 172
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- 195 -

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<210> 173
<211> 258
<212> PRT
<213> Homo sapiens
<400> 173
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Met	Leu	Pro	Leu	Cys	Leu	Val	Ala	Ala	Leu	Leu	Leu	Ala	Ala	Gly	Pro
1				5					10					15	
Gly	Pro	Ser	Leu	Gly	Asp	Glu	Ala	Ile	His	Cys	Pro	Pro	Cys	Ser	Glu
			20					25					30		
Glu	Lys	Leu	Ala	Arg	Cys	Arg	Pro	Pro	Val	Gly	Cys	Glu	Glu	Leu	Val
		35					40					45			
Arg	Glu	Ala	Gly	Cys	Gly	Cys	Cys	Ala	Thr	Cys	Ala	Leu	Gly	Leu	Gly
	50					55					60				

Met Pro Cys Gly Val Tyr Thr Pro Arg Cys Gly Ser Gly Leu Arg Cys
 65 70 75 80
 Tyr Pro Pro Arg Gly Val Glu Lys Pro Leu His Thr Leu Met His Gly
 85 90 95
 Gln Gly Val Cys Met Glu Leu Ala Glu Ile Glu Ala Ile Gln Glu Ser
 100 105 110
 Leu Gln Pro Ser Asp Lys Asp Glu Gly Asp His Pro Asn Asn Ser Phe
 115 120 125
 Ser Pro Cys Ser Ala His Asp Arg Arg Cys Leu Gln Lys His Phe Ala
 130 135 140
 Lys Ile Arg Asp Arg Ser Thr Ser Gly Gly Lys Met Lys Val Asn Gly
 145 150 155 160
 Ala Pro Arg Glu Asp Ala Arg Pro Val Pro Gln Gly Ser Cys Gln Ser
 165 170 175
 Glu Leu His Arg Ala Leu Glu Arg Leu Ala Ala Ser Gln Ser Arg Thr
 180 185 190
 His Glu Asp Leu Tyr Phe Ile Pro Ile Pro Asn Cys Asp Arg Asn Gly
 195 200 205
 Asn Phe His Pro Lys Gln Cys His Pro Ala Leu Asp Gly Gln Arg Gly
 210 215 220
 Lys Cys Trp Cys Val Asp Arg Lys Thr Gly Val Lys Leu Pro Gly Gly
 225 230 235 240
 Leu Glu Pro Lys Gly Glu Leu Asp Cys His Gln Leu Ala Asp Ser Phe
 245 250 255
 Arg Glu

<210> 174
 <211> 1233
 <212> PRT
 <213> Homo sapiens
 <400> 174

Met Gly Phe Leu Lys Leu Ile Glu Ile Glu Asn Phe Lys Ser Tyr Lys
 1 5 10 15
 Gly Arg Gln Ile Ile Gly Pro Phe Gln Arg Phe Thr Ala Ile Ile Gly
 20 25 30
 Pro Asn Gly Ser Gly Lys Ser Asn Leu Met Asp Ala Ile Ser Phe Val
 35 40 45
 Leu Gly Glu Lys Thr Ser Asn Leu Arg Val Lys Thr Leu Arg Asp Leu
 50 55 60
 Ile His Gly Ala Pro Val Gly Lys Pro Ala Ala Asn Arg Ala Phe Val
 65 70 75 80
 Ser Met Val Tyr Ser Glu Glu Gly Ala Glu Asp Arg Thr Phe Ala Arg
 85 90 95
 Val Ile Val Gly Gly Ser Ser Glu Tyr Lys Ile Asn Asn Lys Val Val
 100 105 110
 Gln Leu His Glu Tyr Ser Glu Glu Lys Leu Gly Ile Leu Ile
 115 120 125
 Lys Ala Arg Asn Phe Leu Val Phe Gln Gly Ala Val Glu Ser Ile Ala
 130 135 140
 Met Lys Asn Pro Lys Glu Arg Thr Ala Leu Phe Glu Glu Ile Ser Arg
 145 150 155 160
 Ser Gly Glu Leu Ala Gln Glu Tyr Asp Lys Arg Lys Lys Glu Met Val
 165 170 175
 Lys Ala Glu Glu Asp Thr Gln Phe Asn Tyr His Arg Lys Lys Asn Ile
 180 185 190
 Ala Ala Glu Arg Lys Glu Ala Lys Gln Glu Lys Glu Glu Ala Asp Arg
 195 200 205
 Tyr Gln Arg Leu Lys Asp Glu Val Val Arg Ala Gln Val Gln Leu Gln
 210 215 220
 Leu Phe Lys Leu Tyr His Asn Glu Val Glu Ile Glu Lys Leu Asn Lys
 225 230 235 240
 Glu Leu Ala Ser Lys Asn Lys Glu Ile Glu Lys Asp Lys Lys Arg Met
 245 250 255
 Asp Lys Val Glu Asp Glu Leu Lys Glu Lys Lys Lys Glu Leu Gly Lys
 260 265 270
 Met Met Arg Glu Gln Gln Gln Ile Glu Lys Glu Ile Lys Glu Lys Asp
 275 280 285
 Ser Glu Leu Asn Gln Lys Arg Pro Gln Tyr Ile Lys Ala Lys Glu Asn

290	295	300
Thr Ser His Lys Ile Lys Lys Leu Glu Ala Ala Lys Lys Ser Leu Gln		
305	310	315
Asn Ala Gln Lys His Tyr Lys Lys Arg Lys Gly Asp Met Asp Glu Leu		
	325	330
Glu Lys Glu Met Leu Ser Val Glu Lys Ala Arg Gln Glu Phe Glu Glu		
	340	345
Arg Met Glu Glu Glu Ser Gln Ser Gln Gly Arg Asp Leu Thr Leu Glu		
	355	360
Glu Asn Gln Val Lys Lys Tyr His Arg Leu Lys Glu Glu Ala Ser Lys		
	370	375
Arg Ala Ala Thr Leu Ala Gln Glu Leu Glu Lys Phe Asn Arg Asp Gln		
385	390	395
Lys Ala Asp Gln Asp Arg Leu Asp Leu Glu Glu Arg Lys Lys Val Glu		
	405	410
Thr Glu Ala Lys Ile Lys Gln Lys Leu Arg Glu Ile Glu Glu Asn Gln		
	420	425
Lys Arg Ile Glu Lys Leu Glu Glu Tyr Ile Thr Thr Ser Lys Gln Ser		
	435	440
Leu Glu Glu Gln Lys Lys Leu Glu Gly Glu Leu Thr Glu Glu Val Glu		
450	455	460
Met Ala Lys Arg Arg Ile Asp Glu Ile Asn Lys Glu Leu Asn Gln Val		
465	470	475
Met Glu Gln Leu Gly Asp Ala Arg Ile Asp Arg Gln Glu Ser Ser Arg		
	485	490
Gln Gln Arg Lys Ala Glu Ile Met Glu Ser Ile Lys Arg Leu Tyr Pro		
	500	505
Gly Ser Val Tyr Gly Arg Leu Ile Asp Leu Cys Gln Pro Thr Gln Lys		
	515	520
Lys Tyr Gln Ile Ala Val Thr Lys Val Leu Gly Lys Asn Met Asp Ala		
	530	535
Ile Ile Val Asp Ser Glu Lys Thr Gly Arg Asp Cys Ile Gln Tyr Ile		
545	550	555
Lys Glu Gln Arg Gly Glu Pro Glu Thr Phe Leu Pro Leu Asp Tyr Leu		
	565	570
Glu Val Lys Pro Thr Asp Glu Lys Leu Arg Glu Leu Lys Gly Ala Lys		
	580	585
Leu Val Ile Asp Val Ile Arg Tyr Glu Pro Pro His Ile Lys Lys Ala		
	595	600
Leu Gln Tyr Ala Cys Gly Asn Ala Leu Val Cys Asp Asn Val Glu Asp		
	610	615
Ala Arg Arg Ile Ala Phe Gly Gly His Gln Arg His Lys Thr Val Ala		
625	630	635
Leu Asp Gly Thr Leu Phe Gln Lys Ser Gly Val Ile Ser Gly Gly Ala		
	645	650
Ser Asp Leu Lys Ala Lys Ala Arg Arg Trp Asp Glu Lys Ala Val Asp		
	660	665
Lys Leu Lys Glu Lys Lys Glu Arg Leu Thr Glu Glu Leu Lys Glu Gln		
	675	680
Met Lys Ala Lys Arg Lys Glu Ala Glu Leu Arg Gln Val Gln Ser Gln		
	690	695
Ala His Gly Leu Gln Met Arg Leu Lys Tyr Ser Gln Ser Asp Leu Glu		
705	710	715
Gln Thr Lys Thr Arg His Leu Ala Leu Asn Leu Gln Glu Lys Ser Lys		
	725	730
Leu Glu Ser Glu Leu Ala Asn Phe Gly Pro Arg Ile Asn Asp Ile Lys		
	740	745
Arg Ile Ile Gln Ser Arg Glu Arg Glu Met Lys Asp Leu Lys Glu Lys		
	755	760
Met Asn Gln Val Glu Asp Glu Val Phe Glu Glu Phe Cys Arg Glu Ile		
	770	775
Gly Val Arg Asn Ile Arg Glu Phe Glu Glu Glu Lys Val Lys Arg Gln		
785	790	795
Asn Glu Ile Ala Lys Lys Arg Leu Glu Phe Glu Asn Gln Lys Thr Arg		
	805	810
Leu Gly Ile Gln Leu Asp Phe Glu Lys Asn Gln Leu Lys Glu Asp Gln		
	820	825
Asp Lys Val His Met Trp Glu Gln Thr Val Lys Lys Asp Glu Asn Glu		
	835	840
		845

Ile Glu Lys Leu Lys Lys Glu Glu Gln Arg His Met Lys Ile Ile Asp
 850 855 860
 Glu Thr Met Ala Gln Leu Gln Asp Leu Lys Asn Gln His Leu Ala Lys
 865 870 875 880
 Lys Ser Glu Val Asn Asp Lys Asn His Glu Met Glu Glu Ile Arg Lys
 885 890 895
 Lys Leu Gly Gly Ala Asn Lys Glu Met Thr His Leu Gln Lys Glu Val
 900 905 910
 Thr Ala Ile Glu Thr Lys Leu Glu Gln Lys Arg Ser Asp Arg His Asn
 915 920 925
 Leu Leu Gln Ala Cys Lys Met Gln Asp Ile Lys Leu Pro Leu Ser Lys
 930 935 940
 Gly Thr Met Asp Asp Ile Ser Gln Glu Glu Gly Ser Ser Gln Gly Glu
 945 950 955 960
 Asp Ser Val Ser Gly Ser Gln Arg Ile Ser Ser Ile Tyr Ala Arg Glu
 965 970 975
 Ala Leu Ile Glu Ile Asp Tyr Gly Asp Leu Cys Glu Asp Leu Lys Asp
 980 985 990
 Ala Gln Ala Glu Glu Glu Ile Lys Gln Glu Met Asn Thr Leu Gln Gln
 995 1000 1005
 Lys Leu Asn Glu Gln Gln Ser Val Leu Gln Arg Ile Ala Ala Pro
 1010 1015 1020
 Asn Met Lys Ala Met Glu Lys Leu Glu Ser Val Arg Asp Lys Phe
 1025 1030 1035
 Gln Glu Thr Ser Asp Glu Phe Glu Ala Ala Arg Lys Arg Ala Lys
 1040 1045 1050
 Lys Ala Lys Gln Ala Phe Glu Gln Ile Lys Lys Glu Arg Phe Asp
 1055 1060 1065
 Arg Phe Asn Ala Cys Phe Glu Ser Val Ala Thr Asn Ile Asp Glu
 1070 1075 1080
 Ile Tyr Lys Ala Leu Ser Arg Asn Ser Ser Ala Gln Ala Phe Leu
 1085 1090 1095
 Gly Pro Glu Asn Pro Glu Glu Pro Tyr Leu Asp Gly Ile Asn Tyr
 1100 1105 1110
 Asn Cys Val Ala Pro Gly Lys Arg Phe Arg Pro Met Asp Asn Leu
 1115 1120 1125
 Ser Gly Gly Glu Lys Thr Val Ala Ala Leu Ala Leu Leu Phe Ala
 1130 1135 1140
 Ile His Ser Tyr Lys Pro Ala Pro Phe Phe Val Leu Asp Glu Ile
 1145 1150 1155
 Asp Ala Ala Leu Asp Asn Thr Asn Ile Gly Lys Val Ala Asn Tyr
 1160 1165 1170
 Ile Lys Glu Gln Ser Thr Cys Asn Phe Gln Ala Ile Val Ile Ser
 1175 1180 1185
 Leu Lys Glu Glu Phe Tyr Thr Lys Ala Glu Ser Leu Ile Gly Val
 1190 1195 1200
 Tyr Pro Glu Gln Gly Asp Cys Val Ile Ser Lys Val Leu Thr Phe
 1205 1210 1215
 Asp Leu Thr Lys Tyr Pro Asp Ala Asn Pro Asn Pro Asn Glu Gln
 1220 1225 1230

<210> 175

<211> 501

<212> PRT

<213> Homo sapiens

<400> 175

Met Asn Arg Ser Arg Gln Val Thr Cys Val Ala Trp Val Arg Cys Gly
 1 5 10 15
 Val Ala Lys Glu Thr Pro Asp Lys Val Glu Leu Ser Lys Glu Glu Val
 20 25 30
 Lys Arg Leu Ile Ala Glu Ala Lys Glu Lys Leu Gln Glu Gly Gly
 35 40 45
 Gly Ser Asp Glu Glu Glu Thr Gly Ser Pro Ser Glu Asp Gly Met Gln
 50 55 60
 Ser Ala Arg Thr Gln Ala Arg Pro Arg Glu Pro Leu Glu Asp Gly Asp
 65 70 75 80
 Pro Glu Asp Asp Arg Thr Leu Asp Asp Asp Glu Leu Ala Glu Tyr Asp
 85 90 95
 Leu Asp Lys Tyr Asp Glu Glu Gly Asp Pro Asp Ala Glu Thr Leu Gly

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      100      105      110
Glu Ser Leu Leu Gly Leu Thr Val Tyr Gly Ser Asn Asp Gln Asp Pro
      115      120      125
Tyr Val Thr Leu Lys Asp Thr Glu Gln Tyr Glu Arg Glu Asp Phe Leu
      130      135      140
Ile Lys Pro Ser Asp Asn Leu Ile Val Cys Gly Arg Ala Glu Gln Asp
145      150      155      160
Gln Cys Asn Leu Glu Val His Val Tyr Asn Gln Glu Glu Asp Ser Phe
      165      170      175
Tyr Val His His Asp Ile Leu Leu Ser Ala Tyr Pro Leu Ser Val Glu
      180      185      190
Trp Leu Asn Phe Asp Pro Ser Pro Asp Asp Ser Thr Gly Asn Tyr Ile
      195      200      205
Ala Val Gly Asn Met Thr Pro Val Ile Glu Val Trp Asp Leu Asp Ile
      210      215      220
Val Asp Ser Leu Glu Pro Val Phe Thr Leu Gly Ser Lys Leu Ser Lys
225      230      235      240
Lys Lys Lys Lys Lys Gly Lys Lys Ser Ser Ser Ala Glu Gly His Thr
      245      250      255
Asp Ala Val Leu Asp Leu Ser Trp Asn Lys Leu Ile Arg Asn Val Leu
      260      265      270
Ala Ser Ala Ser Ala Asp Asn Thr Val Ile Leu Trp Asp Met Ser Leu
      275      280      285
Gly Lys Pro Ala Ala Ser Leu Ala Val His Thr Asp Lys Val Gln Thr
      290      295      300
Leu Gln Phe His Pro Phe Glu Ala Gln Thr Leu Ile Ser Gly Ser Tyr
305      310      315      320
Asp Lys Ser Val Ala Leu Tyr Asp Cys Arg Ser Pro Asp Glu Ser His
      325      330      335
Arg Met Trp Arg Phe Ser Gly Gln Ile Glu Arg Val Thr Trp Asn His
      340      345      350
Phe Ser Pro Cys His Phe Leu Ala Ser Thr Asp Asp Gly Phe Val Tyr
      355      360      365
Asn Leu Asp Ala Arg Ser Asp Lys Pro Ile Phe Thr Leu Asn Ala His
      370      375      380
Asn Asp Glu Ile Ser Gly Leu Asp Leu Ser Ser Gln Ile Lys Gly Cys
385      390      395      400
Leu Val Thr Ala Ser Ala Asp Lys Tyr Val Lys Ile Trp Asp Ile Leu
      405      410      415
Gly Asp Arg Pro Ser Leu Val His Ser Arg Asp Met Lys Met Gly Val
      420      425      430
Leu Phe Cys Ser Ser Cys Cys Pro Asp Leu Pro Phe Ile Tyr Ala Phe
      435      440      445
Gly Gly Gln Lys Glu Gly Leu Arg Val Trp Asp Ile Ser Thr Val Ser
      450      455      460
Ser Val Asn Glu Ala Phe Gly Arg Arg Glu Arg Leu Val Leu Gly Ser
465      470      475      480
Ala Arg Asn Ser Ser Ile Ser Gly Pro Phe Gly Ser Arg Ser Ser Asp
      485      490      495
Thr Pro Met Glu Ser
      500

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<210> 176

<211> 488

<212> PRT

<213> Homo sapiens

<400> 176

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Met Ala Tyr Ser Gln Gly Gly Gly Lys Lys Lys Val Cys Tyr Tyr Tyr
1      5      10      15
Asp Gly Asp Ile Gly Asn Tyr Tyr Tyr Gly Gln Gly His Pro Met Lys
      20      25      30
Pro His Arg Ile Arg Met Thr His Asn Leu Leu Leu Asn Tyr Gly Leu
      35      40      45
Tyr Arg Lys Met Glu Ile Tyr Arg Pro His Lys Ala Thr Ala Glu Glu
      50      55      60
Met Thr Lys Tyr His Ser Asp Glu Tyr Ile Lys Phe Leu Arg Ser Ile
65      70      75      80
Arg Pro Asp Asn Met Ser Ser Glu Tyr Ser Lys Gln Met His Ile Phe Asn
      85      90      95

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Val Gly Glu Asp Cys Pro Ala Phe Asp Gly Leu Phe Glu Phe Cys Gln
 100 105 110
 Leu Ser Thr Gly Gly Ser Val Ala Gly Ala Val Lys Leu Asn Arg Gln
 115 120 125
 Gln Thr Asp Met Ala Val Asn Trp Ala Gly Gly Leu His His Ala Lys
 130 135 140
 Lys Tyr Glu Ala Ser Gly Phe Cys Tyr Val Asn Asp Ile Val Leu Ala
 145 150 155 160
 Ile Leu Glu Leu Leu Lys Tyr His Gln Arg Val Leu Tyr Ile Asp Ile
 165 170 175
 Asp Ile His His Gly Asp Gly Val Glu Glu Ala Phe Tyr Thr Thr Asp
 180 185 190
 Arg Val Met Thr Val Ser Phe His Lys Tyr Gly Glu Tyr Phe Pro Gly
 195 200 205
 Thr Gly Asp Leu Arg Asp Ile Gly Ala Gly Lys Gly Lys Tyr Tyr Ala
 210 215 220
 Val Asn Phe Pro Met Cys Asp Gly Ile Asp Asp Glu Ser Tyr Gly Gln
 225 230 235 240
 Ile Phe Lys Pro Ile Ile Ser Lys Val Met Glu Met Tyr Gln Pro Ser
 245 250 255
 Ala Val Val Leu Gln Cys Gly Ala Asp Ser Leu Ser Gly Asp Arg Leu
 260 265 270
 Gly Cys Phe Asn Leu Thr Val Lys Gly His Ala Lys Cys Val Glu Val
 275 280 285
 Val Lys Thr Phe Asn Leu Pro Leu Leu Met Leu Gly Gly Gly Gly Tyr
 290 295 300
 Thr Ile Arg Asn Val Ala Arg Cys Trp Thr Tyr Glu Thr Ala Val Ala
 305 310 315 320
 Leu Asp Cys Glu Ile Pro Asn Glu Leu Pro Tyr Asn Asp Tyr Phe Glu
 325 330 335
 Tyr Phe Gly Pro Asp Phe Lys Leu His Ile Ser Pro Ser Asn Met Thr
 340 345 350
 Asn Gln Asn Thr Pro Glu Tyr Met Glu Lys Ile Lys Gln Arg Leu Phe
 355 360 365
 Glu Asn Leu Arg Met Leu Pro His Ala Pro Gly Val Gln Met Gln Ala
 370 375 380
 Ile Pro Glu Asp Ala Val His Glu Asp Ser Gly Asp Glu Asp Gly Glu
 385 390 395 400
 Asp Pro Asp Lys Arg Ile Ser Ile Arg Ala Ser Asp Lys Arg Ile Ala
 405 410 415
 Cys Asp Glu Glu Phe Ser Asp Ser Glu Asp Glu Gly Glu Gly Arg
 420 425 430
 Arg Asn Val Ala Asp His Lys Lys Gly Ala Lys Lys Ala Arg Ile Glu
 435 440 445
 Glu Asp Lys Lys Glu Thr Glu Asp Lys Lys Thr Asp Val Lys Glu Glu
 450 455 460
 Asp Lys Ser Lys Asp Asn Ser Gly Glu Lys Thr Asp Thr Lys Gly Thr
 465 470 475 480
 Lys Ser Glu Gln Leu Ser Asn Pro
 485

<210> 177

<211> 270

<212> PRT

<213> Homo sapiens

<400> 177

Met Gly Asn Thr Ser Ser Glu Arg Ala Ala Leu Glu Arg His Gly Gly
 1 5 10 15
 His Lys Thr Pro Arg Arg Asp Ser Ser Gly Gly Thr Lys Asp Gly Asp
 20 25 30
 Arg Pro Lys Ile Leu Met Asp Ser Pro Glu Asp Ala Asp Leu Phe His
 35 40 45
 Ser Glu Glu Ile Lys Ala Pro Glu Lys Glu Glu Phe Leu Ala Trp Gln
 50 55 60
 His Asp Leu Glu Val Asn Asp Lys Ala Pro Ala Gln Ala Arg Pro Thr
 65 70 75 80
 Val Phe Arg Trp Thr Gly Gly Gly Lys Glu Val Tyr Leu Ser Gly Ser
 85 90 95
 Phe Asn Asn Trp Ser Lys Leu Pro Leu Thr Arg Ser His Asn Asn Phe

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      100      105      110
Val Ala Ile Leu Asp Leu Pro Glu Gly Glu His Gln Tyr Lys Phe Phe
      115      120      125
Val Asp Gly Gln Trp Thr His Asp Pro Ser Glu Pro Ile Val Thr Ser
      130      135      140
Gln Leu Gly Thr Val Asn Asn Ile Ile Gln Val Lys Lys Thr Asp Phe
      145      150      155
Glu Val Phe Asp Ala Leu Met Val Asp Ser Gln Lys Cys Ser Asp Val
      165      170      175
Ser Glu Leu Ser Ser Ser Pro Pro Gly Pro Tyr His Gln Glu Pro Tyr
      180      185      190
Val Cys Lys Pro Glu Glu Arg Phe Arg Ala Pro Pro Ile Leu Pro Pro
      195      200      205
His Leu Leu Gln Val Ile Leu Asn Lys Asp Thr Gly Ile Ser Cys Asp
      210      215      220
Pro Ala Leu Leu Pro Glu Pro Asn His Val Met Leu Asn His Leu Tyr
      225      230      235
Ala Leu Ser Ile Lys Asp Gly Val Met Val Leu Ser Ala Thr His Arg
      245      250      255
Tyr Lys Lys Lys Tyr Val Thr Thr Leu Leu Tyr Lys Pro Ile
      260      265      270

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<210> 178

<211> 514

<212> PRT

<213> Homo sapiens

<400> 178

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Met Ala Asp Tyr Leu Ile Ser Gly Gly Thr Ser Tyr Val Pro Asp Asp
1      5      10      15
Gly Leu Thr Ala Gln Gln Leu Phe Asn Cys Gly Asp Gly Leu Thr Tyr
      20      25      30
Asn Asp Phe Leu Ile Leu Pro Gly Tyr Ile Asp Phe Thr Ala Asp Gln
      35      40      45
Val Asp Leu Thr Ser Ala Leu Thr Lys Lys Ile Thr Leu Lys Thr Pro
      50      55      60
Leu Val Ser Ser Pro Met Asp Thr Val Thr Glu Ala Gly Met Ala Ile
      65      70      75      80
Ala Met Ala Leu Thr Gly Gly Ile Gly Phe Ile His His Asn Cys Thr
      85      90      95
Pro Glu Phe Gln Ala Asn Glu Val Arg Lys Val Lys Lys Tyr Glu Gln
      100      105      110
Gly Phe Ile Thr Asp Pro Val Val Leu Ser Pro Lys Asp Arg Val Arg
      115      120      125
Asp Val Phe Glu Ala Lys Ala Arg His Gly Phe Cys Gly Ile Pro Ile
      130      135      140
Thr Asp Thr Gly Arg Met Gly Ser Arg Leu Val Gly Ile Ile Ser Ser
      145      150      155      160
Arg Asp Ile Asp Phe Leu Lys Glu Glu Glu His Asp Cys Phe Leu Glu
      165      170      175
Glu Ile Met Thr Lys Arg Glu Asp Leu Val Val Ala Pro Arg Ser Ile
      180      185      190
Thr Leu Lys Glu Ala Asn Glu Ile Leu Gln Arg Ser Lys Lys Gly Lys
      195      200      205
Leu Pro Ile Val Asn Glu Asp Asp Glu Leu Val Ala Ile Ile Ala Arg
      210      215      220
Thr Asp Leu Lys Lys Asn Arg Asp Tyr Pro Leu Ala Ser Lys Asp Ala
      225      230      235      240
Lys Lys Gln Leu Leu Cys Gly Ala Ala Ile Gly Thr His Glu Asp Asp
      245      250      255
Lys Tyr Arg Leu Asp Leu Leu Ala Gln Ala Gly Val Asp Val Val Val
      260      265      270
Leu Asp Ser Ser Gln Gly Asn Ser Ile Phe Gln Ile Asn Met Ile Lys
      275      280      285
Tyr Ile Lys Asp Lys Tyr Pro Asn Leu Gln Val Ile Gly Gly Asn Val
      290      295      300
Val Thr Ala Ala Gln Ala Lys Asn Leu Ile Asp Ala Gly Val Asp Ala
      305      310      315      320
Leu Arg Val Gly Met Gly Ser Gly Ser Ile Cys Ile Thr Gln Glu Val
      325      330      335

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Leu Ala Cys Gly Arg Pro Gln Ala Thr Ala Val Tyr Lys Val Ser Glu
 340 345 350
 Tyr Ala Arg Arg Phe Gly Val Pro Val Ile Ala Asp Gly Gly Ile Gln
 355 360 365
 Asn Val Gly His Ile Ala Lys Ala Leu Ala Leu Gly Ala Ser Thr Val
 370 375 380
 Met Met Gly Ser Leu Leu Ala Ala Thr Thr Glu Ala Pro Gly Glu Tyr
 385 390 395 400
 Phe Phe Ser Asp Gly Ile Arg Leu Lys Lys Tyr Arg Gly Met Gly Ser
 405 410 415
 Leu Asp Ala Met Asp Lys His Leu Ser Ser Gln Asn Arg Tyr Phe Ser
 420 425 430
 Glu Ala Asp Lys Ile Lys Val Ala Gln Gly Val Ser Gly Ala Val Gln
 435 440 445
 Asp Lys Gly Ser Ile His Lys Phe Val Pro Tyr Leu Ile Ala Gly Ile
 450 455 460
 Gln His Ser Cys Gln Asp Ile Gly Ala Lys Ser Leu Thr Gln Val Arg
 465 470 475 480
 Ala Met Met Tyr Ser Gly Glu Leu Lys Phe Glu Lys Arg Thr Ser Ser
 485 490 495
 Ala Gln Val Glu Gly Gly Val His Ser Leu His Ser Tyr Glu Lys Arg
 500 505 510
 Leu Phe

<210> 179
 <211> 152
 <212> PRT
 <213> Homo sapiens
 <400> 179

Met Ser Thr Pro Ala Arg Arg Arg Leu Met Arg Asp Phe Lys Arg Leu
 1 5 10 15
 Gln Glu Asp Pro Pro Ala Gly Val Ser Gly Ala Pro Ser Glu Asn Asn
 20 25 30
 Ile Met Val Trp Asn Ala Val Ile Phe Gly Pro Glu Gly Thr Pro Phe
 35 40 45
 Glu Asp Gly Thr Phe Lys Leu Thr Ile Glu Phe Thr Glu Glu Tyr Pro
 50 55 60
 Asn Lys Pro Pro Thr Val Arg Phe Val Ser Lys Met Phe His Pro Asn
 65 70 75 80
 Val Tyr Ala Asp Gly Ser Ile Cys Leu Asp Ile Leu Gln Asn Arg Trp
 85 90 95
 Ser Pro Thr Tyr Asp Val Ser Ser Ile Leu Thr Ser Ile Gln Ser Leu
 100 105 110
 Leu Asp Glu Pro Asn Pro Asn Ser Pro Ala Asn Ser Gln Ala Ala Gln
 115 120 125
 Leu Tyr Gln Glu Asn Lys Arg Glu Tyr Glu Lys Arg Val Ser Ala Ile
 130 135 140
 Val Glu Gln Ser Trp Arg Asp Cys
 145 150

<210> 180
 <211> 260
 <212> PRT
 <213> Homo sapiens
 <400> 180

Met Pro Gln Asn Glu Tyr Ile Glu Leu His Arg Lys Arg Tyr Gly Tyr
 1 5 10 15
 Arg Leu Asp Tyr His Glu Lys Lys Arg Lys Lys Glu Ser Arg Glu Ala
 20 25 30
 His Glu Arg Ser Lys Lys Ala Lys Lys Met Ile Gly Leu Lys Ala Lys
 35 40 45
 Leu Tyr His Lys Gln Arg His Ala Glu Lys Ile Gln Met Lys Lys Thr
 50 55 60
 Ile Lys Met His Glu Lys Arg Asn Thr Lys Gln Lys Asn Asp Glu Lys
 65 70 75 80
 Thr Pro Gln Gly Ala Val Pro Ala Tyr Leu Leu Asp Arg Glu Gly Gln
 85 90 95
 Ser Arg Ala Lys Val Leu Ser Asn Met Ile Lys Gln Lys Arg Lys Glu

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      100      105      110
Lys Ala Gly Lys Trp Glu Val Pro Leu Pro Lys Val Arg Ala Gln Gly
      115      120      125
Glu Thr Glu Val Leu Lys Val Ile Arg Thr Gly Lys Arg Lys Lys Lys
      130      135      140
Ala Trp Lys Arg Met Val Thr Lys Val Cys Phe Val Gly Asp Gly Phe
145      150      155      160
Thr Arg Lys Pro Pro Lys Tyr Glu Arg Phe Ile Arg Pro Met Gly Leu
      165      170      175
Arg Phe Lys Lys Ala His Val Thr His Pro Glu Leu Lys Ala Thr Phe
      180      185      190
Cys Leu Pro Ile Leu Gly Val Lys Lys Asn Pro Ser Ser Pro Leu Tyr
      195      200      205
Thr Thr Leu Gly Val Ile Thr Lys Gly Thr Val Ile Glu Val Asn Val
      210      215      220
Ser Glu Leu Gly Leu Val Thr Gln Gly Gly Lys Val Ile Trp Gly Lys
225      230      235      240
Tyr Ala Gln Val Thr Asn Asn Pro Glu Asn Asp Gly Cys Ile Asn Ala
      245      250      255
Val Leu Leu Val
      260

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<210> 181

<211> 790

<212> PRT

<213> Homo sapiens

<400> 181

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Met Glu Ala Thr Ser Arg Glu Ala Ala Pro Ala Lys Ser Ser Ala Ser
1      5      10      15
Gly Pro Asn Ala Pro Pro Ala Leu Phe Glu Leu Cys Gly Arg Ala Val
      20      25      30
Ser Ala His Met Gly Val Leu Glu Ser Gly Val Trp Ala Leu Pro Gly
      35      40      45
Pro Ile Leu Gln Ser Ile Leu Pro Leu Leu Asn Ile Tyr Tyr Leu Glu
      50      55      60
Arg Ile Glu Glu Thr Ala Leu Lys Lys Gly Leu Ser Thr Gln Ala Ile
65      70      75      80
Trp Arg Arg Leu Trp Asp Glu Leu Met Lys Thr Arg Pro Ser Ser Leu
      85      90      95
Glu Ser Val Thr Cys Trp Arg Ala Lys Phe Met Glu Ala Phe Phe Ser
      100      105      110
His Val Leu Arg Gly Thr Ile Asp Val Ser Ser Asp Arg Arg Leu Cys
      115      120      125
Asp Gln Arg Phe Ser Pro Leu Leu His Ser Ser Arg His Val Arg Gln
      130      135      140
Leu Thr Ile Cys Asn Met Leu Gln Gly Ala Thr Glu Leu Val Ala Glu
145      150      155      160
Pro Asn Arg Arg Val Leu Glu Thr Leu Ala Ser Ser Leu His Thr Leu
      165      170      175
Lys Phe Arg His Leu Leu Phe Ser Asp Val Ala Ala Gln Gln Ser Leu
      180      185      190
Arg Gln Leu Leu His Gln Leu Ile His His Gly Ala Val Ser Gln Val
      195      200      205
Ser Leu Tyr Ser Trp Pro Val Pro Glu Ser Ala Leu Phe Ile Leu Ile
      210      215      220
Leu Thr Met Ser Ala Gly Phe Trp Gln Pro Gly Pro Gly Gly Pro Pro
225      230      235      240
Cys Arg Leu Cys Gly Glu Ala Ser Arg Gly Arg Ala Pro Ser Arg Asp
      245      250      255
Glu Gly Ser Leu Leu Leu Gly Ser Arg Arg Pro Arg Arg Asp Ala Ala
      260      265      270
Glu Arg Cys Ala Ala Ala Leu Met Ala Ser Arg Arg Lys Ser Glu Ala
      275      280      285
Lys Gln Met Pro Arg Ala Ala Pro Ala Thr Arg Val Thr Arg Arg Ser
      290      295      300
Thr Gln Glu Ser Leu Thr Ala Gly Gly Thr Asp Leu Lys Arg Glu Leu
305      310      315      320
His Pro Pro Ala Thr Ser His Glu Ala Pro Gly Thr Lys Arg Ser Pro
      325      330      335

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Ser Ala Pro Ala Ala Thr Ser Ser Ala Ser Ser Ser Thr Ser Ser Tyr
 340 345 350
 Lys Arg Ala Pro Ala Ser Ser Ala Pro Gln Pro Lys Pro Leu Lys Arg
 355 360 365
 Phe Lys Arg Ala Ala Gly Lys Lys Gly Ala Arg Thr Arg Gln Gly Pro
 370 375 380
 Gly Ala Glu Ser Glu Asp Leu Tyr Asp Phe Val Phe Ile Val Ala Gly
 385 390 395 400
 Glu Lys Glu Asp Gly Glu Glu Met Glu Ile Gly Glu Val Ala Cys Gly
 405 410 415
 Ala Leu Asp Gly Ser Asp Pro Ser Cys Leu Gly Leu Pro Ala Leu Glu
 420 425 430
 Ala Ser Gln Arg Phe Arg Ser Ile Ser Thr Leu Glu Leu Phe Thr Val
 435 440 445
 Pro Leu Ser Thr Glu Ala Ala Leu Thr Leu Cys His Leu Leu Ser Ser
 450 455 460
 Trp Val Ser Leu Glu Ser Leu Thr Leu Ser Tyr Asn Gly Leu Gly Ser
 465 470 475 480
 Asn Ile Phe Arg Leu Leu Asp Ser Leu Arg Ala Leu Ser Gly Gln Ala
 485 490 495
 Gly Cys Arg Leu Arg Ala Leu His Leu Ser Asp Leu Phe Ser Pro Leu
 500 505 510
 Pro Ile Leu Glu Leu Thr Arg Ala Ile Val Arg Ala Leu Pro Leu Leu
 515 520 525
 Arg Val Leu Ser Ile Arg Val Asp His Pro Ser Gln Arg Asp Asn Pro
 530 535 540
 Gly Val Pro Gly Asn Ala Gly Pro Pro Ser His Ile Ile Gly Asp Glu
 545 550 555 560
 Glu Ile Pro Glu Asn Cys Leu Glu Gln Leu Glu Met Gly Phe Pro Arg
 565 570 575
 Gly Ala Gln Pro Ala Pro Leu Leu Cys Ser Val Leu Lys Ala Ser Gly
 580 585 590
 Ser Leu Gln Gln Leu Ser Leu Asp Ser Ala Thr Phe Ala Ser Pro Gln
 595 600 605
 Asp Phe Gly Leu Val Leu Gln Thr Leu Lys Glu Tyr Asn Leu Ala Leu
 610 615 620
 Lys Arg Leu Ser Phe His Asp Met Asn Leu Ala Asp Cys Gln Ser Glu
 625 630 635 640
 Val Leu Phe Leu Leu Gln Asn Leu Thr Leu Gln Glu Ile Thr Phe Ser
 645 650 655
 Phe Cys Arg Leu Phe Glu Lys Arg Pro Ala Gln Phe Leu Pro Glu Met
 660 665 670
 Val Ala Ala Met Lys Gly Asn Ser Thr Leu Lys Gly Leu Arg Leu Pro
 675 680 685
 Gly Asn Arg Leu Gly Asn Ala Gly Leu Leu Ala Leu Ala Asp Val Phe
 690 695 700
 Ser Glu Asp Ser Ser Ser Ser Leu Cys Gln Leu Asp Ile Ser Ser Asn
 705 710 715 720
 Cys Ile Lys Pro Asp Gly Leu Leu Glu Phe Ala Lys Arg Leu Glu Arg
 725 730 735
 Trp Gly Arg Gly Ala Phe Gly His Leu Arg Leu Phe Gln Asn Trp Leu
 740 745 750
 Asp Gln Asp Ala Val Thr Ala Arg Glu Ala Ile Arg Arg Leu Arg Ala
 755 760 765
 Thr Cys His Val Val Ser Asp Ser Trp Asp Ser Ser Gln Ala Phe Ala
 770 775 780
 Asp Tyr Val Ser Thr Met
 785 790

<210> 182

<211> 2058

<212> PRT

<213> Homo sapiens

<400> 182

Met Asp Asn Phe Phe Thr Glu Gly Thr Arg Val Trp Leu Arg Glu Asn
 1 5 10 15
 Gly Gln His Phe Pro Ser Thr Val Asn Ser Cys Ala Glu Gly Ile Val
 20 25 30
 Val Phe Arg Thr Asp Tyr Gly Gln Val Phe Thr Tyr Lys Gln Ser Thr

- 206 -

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Ser Arg Asn Asn Gln Asp Thr Leu Lys Cys Gly Ser Lys His Arg Arg
      595              600              605
Pro Thr Val Ser Ser Gln Phe Lys Asp Ser Leu His Ser Leu Met Ala
      610              615              620
Thr Leu Ser Ser Ser Asn Pro Phe Phe Val Arg Cys Ile Lys Pro Asn
      625              630              635
Met Gln Lys Met Pro Asp Gln Phe Asp Gln Ala Val Val Leu Asn Gln
      645              650              655
Leu Arg Tyr Ser Gly Met Leu Glu Thr Val Arg Ile Arg Lys Ala Gly
      660              665              670
Tyr Ala Val Arg Arg Pro Phe Gln Asp Phe Tyr Lys Arg Tyr Lys Val
      675              680              685
Leu Met Arg Asn Leu Ala Leu Pro Glu Asp Val Arg Gly Lys Cys Thr
      690              695              700
Ser Leu Leu Gln Leu Tyr Asp Ala Ser Asn Ser Glu Trp Gln Leu Gly
      705              710              715
Lys Thr Lys Val Phe Leu Arg Glu Ser Leu Glu Gln Lys Leu Glu Lys
      725              730              735
Arg Arg Glu Glu Glu Val Ser His Ala Ala Met Val Ile Arg Ala His
      740              745              750
Val Leu Gly Phe Leu Ala Arg Lys Gln Tyr Arg Lys Val Leu Tyr Cys
      755              760              765
Val Val Ile Ile Gln Lys Asn Tyr Arg Ala Phe Leu Leu Arg Arg Arg
      770              775              780
Phe Leu His Leu Lys Lys Ala Ala Ile Val Phe Gln Lys Gln Leu Arg
      785              790              795
Gly Gln Ile Ala Arg Arg Val Tyr Arg Gln Leu Leu Ala Glu Lys Arg
      805              810              815
Glu Gln Glu Glu Lys Lys Lys Gln Glu Glu Glu Glu Lys Lys Lys Arg
      820              825              830
Glu Glu Glu Glu Arg Glu Arg Glu Arg Glu Arg Arg Glu Ala Glu Leu
      835              840              845
Arg Ala Gln Gln Glu Glu Glu Thr Arg Lys Gln Gln Glu Leu Glu Ala
      850              855              860
Leu Gln Lys Ser Gln Lys Glu Ala Glu Leu Thr Arg Glu Leu Glu Lys
      865              870              875
Gln Lys Glu Asn Lys Gln Val Glu Glu Ile Leu Arg Leu Glu Lys Glu
      885              890              895
Ile Glu Asp Leu Gln Arg Met Lys Glu Gln Gln Glu Leu Ser Leu Thr
      900              905              910
Glu Ala Ser Leu Gln Lys Leu Gln Glu Arg Arg Asp Gln Glu Leu Arg
      915              920              925
Arg Leu Glu Glu Glu Ala Cys Arg Ala Ala Gln Glu Phe Leu Glu Ser
      930              935              940
Leu Asn Phe Asp Glu Ile Asp Glu Cys Val Arg Asn Ile Glu Arg Ser
      945              950              955
Leu Ser Val Gly Ser Glu Phe Ser Ser Glu Leu Ala Glu Ser Ala Cys
      965              970              975
Glu Glu Lys Pro Asn Phe Asn Phe Ser Gln Pro Tyr Pro Glu Glu Glu
      980              985              990
Val Asp Glu Gly Phe Glu Ala Asp Asp Asp Ala Phe Lys Asp Ser Pro
      995              1000              1005
Asn Pro Ser Glu His Gly His Ser Asp Gln Arg Thr Ser Gly Ile
      1010              1015              1020
Arg Thr Ser Asp Asp Ser Ser Glu Glu Asp Pro Tyr Met Asn Asp
      1025              1030              1035
Thr Val Val Pro Thr Ser Pro Ser Ala Asp Ser Thr Val Leu Leu
      1040              1045              1050
Ala Pro Ser Val Gln Asp Ser Gly Ser Leu His Asn Ser Ser Ser
      1055              1060              1065
Gly Glu Ser Thr Tyr Cys Met Pro Gln Asn Ala Gly Asp Leu Pro
      1070              1075              1080
Ser Pro Asp Gly Asp Tyr Asp Tyr Asp Gln Asp Asp Tyr Glu Asp
      1085              1090              1095
Gly Ala Ile Thr Ser Gly Ser Ser Val Thr Phe Ser Asn Ser Tyr
      1100              1105              1110
Gly Ser Gln Trp Ser Pro Asp Tyr Arg Cys Ser Val Gly Thr Tyr
      1115              1120              1125
Asn Ser Ser Gly Ala Tyr Arg Phe Ser Ser Glu Gly Ala Gln Ser

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1130	Ser Phe Glu Asp Ser Glu	1135	Glu Asp Phe Asp Ser	1140	Arg Phe Asp Thr
1145	Asp Asp Glu Leu Ser Tyr	1150	Arg Asp Ser Val	1155	Tyr Ser Cys Val
1160	Thr Leu Pro Tyr Phe His	1165	Ser Phe Leu Tyr Met	1170	Lys Gly Gly Leu
1175	Met Asn Ser Trp Lys Arg	1180	Arg Trp Cys Val Leu	1185	Lys Asp Glu Thr
1190	Phe Leu Trp Phe Arg Ser	1195	Lys Gln Glu Ala Leu	1200	Lys Gln Gly Trp
1205	Leu His Lys Lys Gly Gly	1210	Gly Ser Ser Thr Leu	1215	Ser Arg Arg Asn
1220	Trp Lys Lys Arg Trp Phe	1225	Val Leu Arg Gln Ser	1230	Lys Leu Met Tyr
1235	Phe Glu Asn Asp Ser Glu	1240	Glu Lys Leu Lys Gly	1245	Thr Val Glu Val
1250	Arg Thr Ala Lys Glu Ile	1255	Ile Asp Asn Thr Thr	1260	Lys Glu Asn Gly
1265	Ile Asp Ile Ile Met Ala	1270	Asp Arg Thr Phe His	1275	Leu Ile Ala Glu
1280	Ser Pro Glu Asp Ala Ser	1285	Gln Trp Phe Ser Val	1290	Leu Ser Gln Val
1295	His Ala Ser Thr Asp Gln	1300	Glu Ile Gln Glu Met	1305	His Asp Glu Gln
1310	Ala Asn Pro Gln Asn Ala	1315	Val Gly Thr Leu Asp	1320	Val Gly Leu Ile
1325	Asp Ser Val Cys Ala Ser	1330	Asp Ser Pro Asp Arg	1335	Pro Asn Ser Phe
1340	Val Ile Ile Thr Ala Asn	1345	Arg Val Leu His Cys	1350	Asn Ala Asp Thr
1355	Pro Glu Glu Met His His	1360	Trp Ile Thr Leu Leu	1365	Gln Arg Ser Lys
1370	Gly Asp Thr Arg Val Glu	1375	Gly Gln Glu Phe Ile	1380	Val Arg Gly Trp
1385	Leu His Lys Glu Val Lys	1390	Asn Ser Pro Lys Met	1395	Ser Ser Leu Lys
1400	Leu Lys Lys Arg Trp Phe	1405	Val Leu Thr His Asn	1410	Ser Leu Asp Tyr
1415	Tyr Lys Ser Ser Glu Lys	1420	Asn Ala Leu Lys Leu	1425	Gly Thr Leu Val
1430	Leu Asn Ser Leu Cys Ser	1435	Val Val Pro Pro Asp	1440	Glu Lys Ile Phe
1445	Lys Glu Thr Gly Tyr Trp	1450	Asn Val Thr Val Tyr	1455	Gly Arg Lys His
1460	Cys Tyr Arg Leu Tyr Thr	1465	Lys Leu Leu Asn Glu	1470	Ala Thr Arg Trp
1475	Ser Ser Ala Ile Gln Asn	1480	Val Thr Asp Thr Lys	1485	Ala Pro Ile Asp
1490	Thr Pro Thr Gln Gln Leu	1495	Ile Gln Asp Ile Lys	1500	Glu Asn Cys Leu
1505	Asn Ser Asp Val Val Glu	1510	Gln Ile Tyr Lys Arg	1515	Asn Pro Ile Leu
1520	Arg Tyr Thr His His Pro	1525	Leu His Ser Pro Leu	1530	Leu Pro Leu Pro
1535	Tyr Gly Asp Ile Asn Leu	1540	Asn Leu Leu Lys Asp	1545	Lys Gly Tyr Thr
1550	Thr Leu Gln Asp Glu Ala	1555	Ile Lys Ile Phe Asn	1560	Ser Leu Gln Gln
1565	Leu Glu Ser Met Ser Asp	1570	Pro Ile Pro Ile Ile	1575	Gln Gly Ile Leu
1580	Gln Thr Gly His Asp Leu	1585	Arg Pro Leu Arg Asp	1590	Glu Leu Tyr Cys
1595	Gln Leu Ile Lys Gln Thr	1600	Asn Lys Val Pro His	1605	Pro Gly Ser Val
1610	Gly Asn Leu Tyr Ser Trp	1615	Gln Ile Leu Thr Cys	1620	Leu Ser Cys Thr
1625	Phe Leu Pro Ser Arg Gly	1630	Ile Leu Lys Tyr Leu	1635	Lys Phe His Leu
1640		1645		1650	

Lys Arg Ile Arg Glu Gln Phe Pro Gly Thr Glu Met Glu Lys Tyr
 1655 1660 1665
 Ala Leu Phe Thr Tyr Glu Ser Leu Lys Lys Thr Lys Cys Arg Glu
 1670 1675 1680
 Phe Val Pro Ser Arg Asp Glu Ile Glu Ala Leu Ile His Arg Gln
 1685 1690 1695
 Glu Met Thr Ser Thr Val Tyr Cys His Gly Gly Gly Ser Cys Lys
 1700 1705 1710
 Ile Thr Ile Asn Ser His Thr Thr Ala Gly Glu Val Val Glu Lys
 1715 1720 1725
 Leu Ile Arg Gly Leu Ala Met Glu Asp Ser Arg Asn Met Phe Ala
 1730 1735 1740
 Leu Phe Glu Tyr Asn Gly His Val Asp Lys Ala Ile Glu Ser Arg
 1745 1750 1755
 Thr Val Val Ala Asp Val Leu Ala Lys Phe Glu Lys Leu Ala Ala
 1760 1765 1770
 Thr Ser Glu Val Gly Asp Leu Pro Trp Lys Phe Tyr Phe Lys Leu
 1775 1780 1785
 Tyr Cys Phe Leu Asp Thr Asp Asn Val Pro Lys Asp Ser Val Glu
 1790 1795 1800
 Phe Ala Phe Met Phe Glu Gln Ala His Glu Ala Val Ile His Gly
 1805 1810 1815
 His His Pro Ala Pro Glu Glu Asn Leu Gln Val Leu Ala Ala Leu
 1820 1825 1830
 Arg Leu Gln Tyr Leu Gln Gly Asp Tyr Thr Leu His Ala Ala Ile
 1835 1840 1845
 Pro Pro Leu Glu Glu Val Tyr Ser Leu Gln Arg Leu Lys Ala Arg
 1850 1855 1860
 Ile Ser Gln Ser Thr Lys Thr Phe Thr Pro Cys Glu Arg Leu Glu
 1865 1870 1875
 Lys Arg Arg Thr Ser Phe Leu Glu Gly Thr Leu Arg Arg Ser Phe
 1880 1885 1890
 Arg Thr Gly Ser Val Val Arg Gln Lys Val Glu Glu Glu Gln Met
 1895 1900 1905
 Leu Asp Met Trp Ile Lys Glu Glu Val Ser Ser Ala Arg Ala Ser
 1910 1915 1920
 Ile Ile Asp Lys Trp Arg Lys Phe Gln Gly Met Asn Gln Glu Gln
 1925 1930 1935
 Ala Met Ala Lys Tyr Met Ala Leu Ile Lys Glu Trp Pro Gly Tyr
 1940 1945 1950
 Gly Ser Thr Leu Phe Asp Val Glu Cys Lys Glu Gly Gly Phe Pro
 1955 1960 1965
 Gln Glu Leu Trp Leu Gly Val Ser Ala Asp Ala Val Ser Val Tyr
 1970 1975 1980
 Lys Arg Gly Glu Gly Arg Pro Leu Glu Val Phe Gln Tyr Glu His
 1985 1990 1995
 Ile Leu Ser Phe Gly Ala Pro Leu Ala Asn Thr Tyr Lys Ile Val
 2000 2005 2010
 Val Asp Glu Arg Glu Leu Leu Phe Glu Thr Ser Glu Val Val Asp
 2015 2020 2025
 Val Ala Lys Leu Met Lys Ala Tyr Ile Ser Met Ile Val Lys Lys
 2030 2035 2040
 Arg Tyr Ser Thr Thr Arg Ser Ala Ser Ser Gln Gly Ser Ser Arg
 2045 2050 2055

<210> 183

<211> 1210

<212> PRT

<213> Homo sapiens

<400> 183

Met Arg Pro Ser Gly Thr Ala Gly Ala Ala Leu Leu Ala Leu Leu Ala
 1 5 10 15
 Ala Leu Cys Pro Ala Ser Arg Ala Leu Glu Glu Lys Lys Val Cys Gln
 20 25 30
 Gly Thr Ser Asn Lys Leu Thr Gln Leu Gly Thr Phe Glu Asp His Phe
 35 40 45
 Leu Ser Leu Gln Arg Met Phe Asn Asn Cys Glu Val Val Leu Gly Asn
 50 55 60
 Leu Glu Ile Thr Tyr Val Gln Arg Asn Tyr Asp Leu Ser Phe Leu Lys

65					70					75				80	
Thr	Ile	Gln	Glu	Val	Ala	Gly	Tyr	Val	Leu	Ile	Ala	Leu	Asn	Thr	Val
				85					90					95	
Glu	Arg	Ile	Pro	Leu	Glu	Asn	Leu	Gln	Ile	Ile	Arg	Gly	Asn	Met	Tyr
			100					105					110		
Tyr	Glu	Asn	Ser	Tyr	Ala	Leu	Ala	Val	Leu	Ser	Asn	Tyr	Asp	Ala	Asn
		115					120					125			
Lys	Thr	Gly	Leu	Lys	Glu	Leu	Pro	Met	Arg	Asn	Leu	Gln	Glu	Ile	Leu
		130				135					140				
His	Gly	Ala	Val	Arg	Phe	Ser	Asn	Asn	Pro	Ala	Leu	Cys	Asn	Val	Glu
145					150					155				160	
Ser	Ile	Gln	Trp	Arg	Asp	Ile	Val	Ser	Ser	Asp	Phe	Leu	Ser	Asn	Met
			165						170					175	
Ser	Met	Asp	Phe	Gln	Asn	His	Leu	Gly	Ser	Cys	Gln	Lys	Cys	Asp	Pro
		180						185					190		
Ser	Cys	Pro	Asn	Gly	Ser	Cys	Trp	Gly	Ala	Gly	Glu	Glu	Asn	Cys	Gln
		195					200					205			
Lys	Leu	Thr	Lys	Ile	Ile	Cys	Ala	Gln	Gln	Cys	Ser	Gly	Arg	Cys	Arg
		210				215						220			
Gly	Lys	Ser	Pro	Ser	Asp	Cys	Cys	His	Asn	Gln	Cys	Ala	Ala	Gly	Cys
225					230					235				240	
Thr	Gly	Pro	Arg	Glu	Ser	Asp	Cys	Leu	Val	Cys	Arg	Lys	Phe	Arg	Asp
				245					250					255	
Glu	Ala	Thr	Cys	Lys	Asp	Thr	Cys	Pro	Pro	Leu	Met	Leu	Tyr	Asn	Pro
			260					265					270		
Thr	Thr	Tyr	Gln	Met	Asp	Val	Asn	Pro	Glu	Gly	Lys	Tyr	Ser	Phe	Gly
		275					280						285		
Ala	Thr	Cys	Val	Lys	Lys	Cys	Pro	Arg	Asn	Tyr	Val	Val	Thr	Asp	His
		290				295					300				
Gly	Ser	Cys	Val	Arg	Ala	Cys	Gly	Ala	Asp	Ser	Tyr	Glu	Met	Glu	Glu
305					310					315				320	
Asp	Gly	Val	Arg	Lys	Cys	Lys	Lys	Cys	Glu	Gly	Pro	Cys	Arg	Lys	Val
				325					330					335	
Cys	Asn	Gly	Ile	Gly	Ile	Gly	Glu	Phe	Lys	Asp	Ser	Leu	Ser	Ile	Asn
			340					345					350		
Ala	Thr	Asn	Ile	Lys	His	Phe	Lys	Asn	Cys	Thr	Ser	Ile	Ser	Gly	Asp
		355					360					365			
Leu	His	Ile	Leu	Pro	Val	Ala	Phe	Arg	Gly	Asp	Ser	Phe	Thr	His	Thr
		370				375						380			
Pro	Pro	Leu	Asp	Pro	Gln	Glu	Leu	Asp	Ile	Leu	Lys	Thr	Val	Lys	Glu
385					390					395				400	
Ile	Thr	Gly	Phe	Leu	Leu	Ile	Gln	Ala	Trp	Pro	Glu	Asn	Arg	Thr	Asp
				405					410					415	
Leu	His	Ala	Phe	Glu	Asn	Leu	Glu	Ile	Ile	Arg	Gly	Arg	Thr	Lys	Gln
			420					425					430		
His	Gly	Gln	Phe	Ser	Leu	Ala	Val	Val	Ser	Leu	Asn	Ile	Thr	Ser	Leu
			435				440					445			
Gly	Leu	Arg	Ser	Leu	Lys	Glu	Ile	Ser	Asp	Gly	Asp	Val	Ile	Ile	Ser
		450				455					460				
Gly	Asn	Lys	Asn	Leu	Cys	Tyr	Ala	Asn	Thr	Ile	Asn	Trp	Lys	Lys	Leu
465					470					475				480	
Phe	Gly	Thr	Ser	Gly	Gln	Lys	Thr	Lys	Ile	Ile	Ser	Asn	Arg	Gly	Glu
				485					490					495	
Asn	Ser	Cys	Lys	Ala	Thr	Gly	Gln	Val	Cys	His	Ala	Leu	Cys	Ser	Pro
			500					505					510		
Glu	Gly	Cys	Trp	Gly	Pro	Glu	Pro	Arg	Asp	Cys	Val	Ser	Cys	Arg	Asn
			515				520						525		
Val	Ser	Arg	Gly	Arg	Glu	Cys	Val	Asp	Lys	Cys	Asn	Leu	Leu	Glu	Gly
			530			535					540				
Glu	Pro	Arg	Glu	Phe	Val	Glu	Asn	Ser	Glu	Cys	Ile	Gln	Cys	His	Pro
545					550					555				560	
Glu	Cys	Leu	Pro	Gln	Ala	Met	Asn	Ile	Thr	Cys	Thr	Gly	Arg	Gly	Pro
				565					570					575	
Asp	Asn	Cys	Ile	Gln	Cys	Ala	His	Tyr	Ile	Asp	Gly	Pro	His	Cys	Val
			580					585					590		
Lys	Thr	Cys	Pro	Ala	Gly	Val	Met	Gly	Glu	Asn	Asn	Thr	Leu	Val	Trp
		595					600						605		
Lys	Tyr	Ala	Asp	Ala	Gly	His	Val	Cys	His	Leu	Cys	His	Pro	Asn	Cys
			610			615					620				

Thr	Tyr	Gly	Cys	Thr	Gly	Pro	Gly	Leu	Glu	Gly	Cys	Pro	Thr	Asn	Gly
625					630					635					640
Pro	Lys	Ile	Pro	Ser	Ile	Ala	Thr	Gly	Met	Val	Gly	Ala	Leu	Leu	Leu
				645					650						655
Leu	Leu	Val	Val	Ala	Leu	Gly	Ile	Gly	Leu	Phe	Met	Arg	Arg	Arg	His
				660					665					670	
Ile	Val	Arg	Lys	Arg	Thr	Leu	Arg	Arg	Leu	Leu	Gln	Glu	Arg	Glu	Leu
				675					680					685	
Val	Glu	Pro	Leu	Thr	Pro	Ser	Gly	Glu	Ala	Pro	Asn	Gln	Ala	Leu	Leu
Arg	Ile	Leu	Lys	Glu	Thr	Glu	Phe	Lys	Lys	Ile	Lys	Val	Leu	Gly	Ser
705					710					715					720
Gly	Ala	Phe	Gly	Thr	Val	Tyr	Lys	Gly	Leu	Trp	Ile	Pro	Glu	Gly	Glu
					725					730					735
Lys	Val	Lys	Ile	Pro	Val	Ala	Ile	Lys	Glu	Leu	Arg	Glu	Ala	Thr	Ser
Pro	Lys	Ala	Asn	Lys	Glu	Ile	Leu	Asp	Glu	Ala	Tyr	Val	Met	Ala	Ser
Val	Asp	Asn	Pro	His	Val	Cys	Arg	Leu	Leu	Gly	Ile	Cys	Leu	Thr	Ser
770															
Thr	Val	Gln	Leu	Ile	Thr	Gln	Leu	Met	Pro	Phe	Gly	Cys	Leu	Leu	Asp
785					790					795					800
Tyr	Val	Arg	Glu	His	Lys	Asp	Asn	Ile	Gly	Ser	Gln	Tyr	Leu	Leu	Asn
					805					810					815
Trp	Cys	Val	Gln	Ile	Ala	Lys	Gly	Met	Asn	Tyr	Leu	Glu	Asp	Arg	Arg
Leu	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Val	Leu	Val	Lys	Thr	Pro
Gln	His	Val	Lys	Ile	Thr	Asp	Phe	Gly	Leu	Ala	Lys	Leu	Leu	Gly	Ala
Glu	Glu	Lys	Glu	Tyr	His	Ala	Glu	Gly	Gly	Lys	Val	Pro	Ile	Lys	Trp
865					870					875					880
Met	Ala	Leu	Glu	Ser	Ile	Leu	His	Arg	Ile	Tyr	Thr	His	Gln	Ser	Asp
					885					890					895
Val	Trp	Ser	Tyr	Gly	Val	Thr	Val	Trp	Glu	Leu	Met	Thr	Phe	Gly	Ser
Lys	Pro	Tyr	Asp	Gly	Ile	Pro	Ala	Ser	Glu	Ile	Ser	Ser	Ile	Leu	Glu
Lys	Gly	Glu	Arg	Leu	Pro	Gln	Pro	Pro	Ile	Cys	Thr	Ile	Asp	Val	Tyr
Met	Ile	Met	Val	Lys	Cys	Trp	Met	Ile	Asp	Ala	Asp	Ser	Arg	Pro	Lys
945					950					955					960
Phe	Arg	Glu	Leu	Ile	Ile	Glu	Phe	Ser	Lys	Met	Ala	Arg	Asp	Pro	Gln
					965					970					975
Arg	Tyr	Leu	Val	Ile	Gln	Gly	Asp	Glu	Arg	Met	His	Leu	Pro	Ser	Pro
					980					985					990
Thr	Asp	Ser	Asn	Phe	Tyr	Arg	Ala	Leu	Met	Asp	Glu	Glu	Asp	Met	Asp
Asp	Val	Val	Asp	Ala	Asp	Glu	Tyr	Leu	Ile	Pro	Gln	Gln	Gly	Phe	
1010															
Phe	Ser	Ser	Pro	Ser	Thr	Ser	Arg	Thr	Pro	Leu	Leu	Ser	Ser	Leu	
Ser	Ala	Thr	Ser	Asn	Asn	Ser	Thr	Val	Ala	Cys	Ile	Asp	Arg	Asn	
1040															
Gly	Leu	Gln	Ser	Cys	Pro	Ile	Lys	Glu	Asp	Ser	Phe	Leu	Gln	Arg	
Tyr	Ser	Ser	Asp	Pro	Thr	Gly	Ala	Leu	Thr	Glu	Asp	Ser	Ile	Asp	
1070															
Asp	Thr	Phe	Leu	Pro	Val	Pro	Glu	Tyr	Ile	Asn	Gln	Ser	Val	Pro	
Lys	Arg	Pro	Ala	Gly	Ser	Val	Gln	Asn	Pro	Val	Tyr	His	Asn	Gln	
1100															
Pro	Leu	Asn	Pro	Ala	Pro	Ser	Arg	Asp	Pro	His	Tyr	Gln	Asp	Pro	
His	Ser	Thr	Ala	Val	Gly	Asn	Pro	Glu	Tyr	Leu	Asn	Thr	Val	Gln	
1130															
Pro	Thr	Cys	Val	Asn	Ser	Thr	Phe	Asp	Ser	Pro	Ala	His	Trp	Ala	
Gln	Lys	Gly	Ser	His	Gln	Ile	Ser	Leu	Asp	Asn	Pro	Asp	Tyr	Gln	


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1160      1165      1170
Gln Asp  Phe Phe Pro Lys Glu  Ala Lys Pro Asn Gly  Ile Phe Lys
1175      1180      1185
Gly Ser  Thr Ala Glu Asn Ala  Glu Tyr Leu Arg Val  Ala Pro Gln
1190      1195      1200
Ser Ser  Glu Phe Ile Gly Ala
1205      1210

<210> 184
<211> 453
<212> PRT
<213> Homo sapiens
<400> 184
Met Pro Lys Asn Lys Lys Arg Asn Thr Pro His Arg Gly Ser Ser Ala
1      5      10      15
Gly Gly Gly Gly Ser Gly Ala Ala Ala Thr Ala Ala Thr Ala Gly
20      25      30
Gly Gln His Arg Asn Val Gln Pro Phe Ser Asp Glu Asp Ala Ser Ile
35      40      45
Glu Thr Met Ser His Cys Ser Gly Tyr Ser Asp Pro Ser Ser Phe Ala
50      55      60
Glu Asp Gly Pro Glu Val Leu Asp Glu Glu Gly Thr Gln Glu Asp Leu
65      70      75      80
Glu Tyr Lys Arg Lys Gly Leu Ile Asp Leu Thr Leu Asp Lys Ser Ala
85      90      95
Lys Thr Arg Gln Ala Ala Leu Glu Gly Ile Lys Asn Ala Leu Ala Ser
100      105      110
Lys Met Leu Tyr Glu Phe Ile Leu Glu Arg Arg Met Thr Leu Thr Asp
115      120      125
Ser Ile Glu Arg Cys Leu Lys Gly Lys Ser Asp Glu Gln Arg Ala
130      135      140
Ala Ala Ala Leu Ala Ser Val Leu Cys Ile Gln Leu Gly Pro Gly Ile
145      150      155      160
Glu Ser Glu Glu Ile Leu Lys Thr Leu Gly Pro Ile Leu Lys Lys Ile
165      170      175
Ile Cys Asp Gly Ser Ala Ser Met Gln Ala Arg Gln Thr Cys Ala Thr
180      185      190
Cys Phe Gly Val Cys Cys Phe Ile Ala Thr Asp Asp Ile Thr Glu Leu
195      200      205
Tyr Ser Thr Leu Glu Cys Leu Glu Asn Ile Phe Thr Lys Ser Tyr Leu
210      215      220
Lys Glu Lys Asp Thr Thr Val Ile Cys Ser Thr Pro Asn Thr Val Leu
225      230      235      240
His Ile Ser Ser Leu Leu Ala Trp Thr Leu Leu Thr Ile Cys Pro
245      250      255
Ile Asn Glu Val Lys Lys Lys Leu Glu Met His Phe His Lys Leu Pro
260      265      270
Ser Leu Leu Ser Cys Asp Asp Val Asn Met Arg Ile Ala Ala Gly Glu
275      280      285
Ser Leu Ala Leu Leu Phe Glu Leu Ala Arg Gly Ile Glu Ser Asp Phe
290      295      300
Phe Tyr Glu Asp Met Glu Ser Leu Thr Gln Met Leu Arg Ala Leu Ala
305      310      315      320
Thr Asp Gly Asn Lys His Arg Ala Lys Val Asp Lys Arg Lys Gln Arg
325      330      335
Ser Val Phe Arg Asp Val Leu Arg Ala Val Glu Glu Arg Asp Phe Pro
340      345      350
Thr Glu Thr Ile Lys Phe Gly Pro Glu Arg Met Tyr Ile Asp Cys Trp
355      360      365
Val Lys Lys His Thr Tyr Asp Thr Phe Lys Glu Val Leu Gly Ser Gly
370      375      380
Met Gln Tyr Pro Leu Ala Val Lys Met Glu Phe Leu Glu Asn Val Phe
385      390      395      400
Glu Thr Trp Thr Pro Ser Asp Ala Leu Met Leu Gln Arg Leu Lys Thr
405      410      415
Met Lys Ile Ser Arg Phe Glu Arg His Leu Tyr Asn Ser Ala Ala Phe
420      425      430
Lys Ala Arg Thr Lys Ala Arg Ser Lys Cys Arg Asp Lys Arg Ala Asp
435      440      445

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Val Gly Glu Phe Phe
450

<210> 185

<211> 341

<212> PRT

<213> Homo sapiens

<400> 185

```

Met Pro Lys Arg Lys Val Thr Phe Gln Gly Val Gly Asp Glu Glu Asp
1      5      10      15
Glu Asp Glu Ile Ile Val Pro Lys Lys Lys Leu Val Asp Pro Val Ala
20      25      30
Gly Ser Gly Gly Pro Gly Ser Arg Phe Lys Gly Lys His Ser Leu Asp
35      40      45
Ser Asp Glu Glu Glu Asp Asp Asp Asp Gly Gly Ser Ser Lys Tyr Asp
50      55      60
Ile Leu Ala Ser Glu Asp Val Glu Gly Gln Glu Ala Ala Thr Leu Pro
65      70      75      80
Ser Glu Gly Gly Val Arg Ile Thr Pro Phe Asn Leu Gln Glu Glu Met
85      90      95
Glu Glu Gly His Phe Asp Ala Asp Gly Asn Tyr Phe Leu Asn Arg Asp
100     105     110
Ala Gln Ile Arg Asp Ser Trp Leu Asp Asn Ile Asp Trp Val Lys Ile
115     120     125
Arg Glu Arg Pro Pro Gly Gln Arg Gln Ala Ser Asp Ser Glu Glu Glu
130     135     140
Asp Ser Leu Gly Gln Thr Ser Met Ser Ala Gln Ala Leu Leu Glu Gly
145     150     155     160
Leu Leu Glu Leu Leu Leu Pro Arg Glu Thr Val Ala Gly Ala Leu Arg
165     170     175
Arg Leu Gly Ala Arg Gly Gly Gly Lys Gly Arg Lys Gly Pro Gly Gln
180     185     190
Pro Ser Ser Pro Gln Arg Leu Asp Arg Leu Ser Gly Leu Ala Asp Gln
195     200     205
Met Val Ala Arg Gly Asn Leu Gly Val Tyr Gln Glu Thr Arg Glu Arg
210     215     220
Leu Ala Met Arg Leu Lys Gly Leu Gly Cys Gln Thr Leu Gly Pro His
225     230     235     240
Asn Pro Thr Pro Pro Pro Ser Leu Asp Met Phe Ala Glu Glu Leu Ala
245     250     255
Glu Glu Glu Leu Glu Thr Pro Thr Pro Thr Gln Arg Gly Glu Ala Glu
260     265     270
Ser Arg Gly Asp Gly Leu Val Asp Val Met Trp Glu Tyr Lys Trp Glu
275     280     285
Asn Thr Gly Asp Ala Glu Leu Tyr Gly Pro Phe Thr Ser Ala Gln Met
290     295     300
Gln Thr Trp Val Ser Glu Gly Tyr Phe Pro Asp Gly Val Tyr Cys Arg
305     310     315     320
Lys Leu Asp Pro Pro Gly Gly Gln Phe Tyr Asn Ser Lys Arg Ile Asp
325     330     335
Phe Asp Leu Tyr Thr
340

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<210> 186

<211> 182

<212> PRT

<213> Homo sapiens

<400> 186

```

Met Gly Leu Leu Ser Ile Leu Arg Lys Leu Lys Ser Ala Pro Asp Gln
1      5      10      15
Glu Val Arg Ile Leu Leu Leu Gly Leu Asp Asn Ala Gly Lys Thr Thr
20      25      30
Leu Leu Lys Gln Leu Ala Ser Glu Asp Ile Ser His Ile Thr Pro Thr
35      40      45
Gln Gly Phe Asn Ile Lys Ser Val Gln Ser Gln Gly Phe Lys Leu Asn
50      55      60
Val Trp Asp Ile Gly Gly Gln Arg Lys Ile Arg Pro Tyr Trp Lys Asn
65      70      75      80
Tyr Phe Glu Asn Thr Asp Ile Leu Ile Tyr Val Ile Asp Ser Ala Asp

```

Arg	Lys	Arg	Phe	85	Glu	Glu	Thr	Gly	Gln	90	Glu	Leu	Ala	Glu	Leu	95	Leu	Glu
			100						105						110			
Glu	Glu	Lys	Leu	Ser	Cys	Val	Pro	Val	Leu	Ile	Phe	Ala	Asn	Lys	Gln			
		115					120					125						
Asp	Leu	Leu	Thr	Ala	Ala	Pro	Ala	Ser	Glu	Ile	Ala	Glu	Gly	Leu	Asn			
		130					135					140						
Leu	His	Thr	Ile	Arg	Asp	Arg	Val	Trp	Gln	Ile	Gln	Ser	Cys	Ser	Ala			
		145				150					155				160			
Leu	Thr	Gly	Glu	Gly	Val	Gln	Asp	Gly	Met	Asn	Trp	Val	Cys	Lys	Asn			
				165					170						175			
Val	Asn	Ala	Lys	Lys	Lys													
			180															

<210> 187

<211> 398

<212> PRT

<213> Homo sapiens

<400> 187

Met	Ala	Leu	Leu	Arg	Arg	Pro	Thr	Val	Ser	Ser	Asp	Leu	Glu	Asn	Ile			
1				5					10					15				
Asp	Thr	Gly	Val	Asn	Ser	Lys	Val	Lys	Ser	His	Val	Thr	Ile	Arg	Arg			
			20					25					30					
Thr	Val	Leu	Glu	Glu	Ile	Gly	Asn	Arg	Val	Thr	Thr	Arg	Ala	Ala	Gln			
		35				40						45						
Val	Ala	Lys	Lys	Ala	Gln	Asn	Thr	Lys	Val	Pro	Val	Gln	Pro	Thr	Lys			
		50				55					60							
Thr	Thr	Asn	Val	Asn	Lys	Gln	Leu	Lys	Pro	Thr	Ala	Ser	Val	Lys	Pro			
		65			70					75				80				
Val	Gln	Met	Glu	Lys	Leu	Ala	Pro	Lys	Gly	Pro	Ser	Pro	Thr	Pro	Glu			
				85					90					95				
Asp	Val	Ser	Met	Lys	Glu	Glu	Asn	Leu	Cys	Gln	Ala	Phe	Ser	Asp	Ala			
			100					105					110					
Leu	Leu	Cys	Lys	Ile	Glu	Asp	Ile	Asp	Asn	Glu	Asp	Trp	Glu	Asn	Pro			
		115					120					125						
Gln	Leu	Cys	Ser	Asp	Tyr	Val	Lys	Asp	Ile	Tyr	Gln	Tyr	Leu	Arg	Gln			
		130				135					140							
Leu	Glu	Val	Leu	Gln	Ser	Ile	Asn	Pro	His	Phe	Leu	Asp	Gly	Arg	Asp			
		145			150					155					160			
Ile	Asn	Gly	Arg	Met	Arg	Ala	Ile	Leu	Val	Asp	Trp	Leu	Val	Gln	Val			
				165					170					175				
His	Ser	Lys	Phe	Arg	Leu	Leu	Gln	Glu	Thr	Leu	Tyr	Met	Cys	Val	Gly			
			180					185					190					
Ile	Met	Asp	Arg	Phe	Leu	Gln	Val	Gln	Pro	Val	Ser	Arg	Lys	Lys	Leu			
		195					200					205						
Gln	Leu	Val	Gly	Ile	Thr	Ala	Leu	Leu	Leu	Ala	Ser	Lys	Tyr	Glu	Glu			
		210				215						220						
Met	Phe	Ser	Pro	Asn	Ile	Glu	Asp	Phe	Val	Tyr	Ile	Thr	Asp	Asn	Ala			
		225			230					235				240				
Tyr	Thr	Ser	Ser	Gln	Ile	Arg	Glu	Met	Glu	Thr	Leu	Ile	Leu	Lys	Glu			
				245					250					255				
Leu	Lys	Phe	Glu	Leu	Gly	Arg	Pro	Leu	Pro	Leu	His	Phe	Leu	Arg	Arg			
		260						265					270					
Ala	Ser	Lys	Ala	Gly	Glu	Val	Asp	Val	Glu	Gln	His	Thr	Leu	Ala	Lys			
		275					280					285						
Tyr	Leu	Met	Glu	Leu	Thr	Leu	Ile	Asp	Tyr	Asp	Met	Val	His	Tyr	His			
		290				295					300							
Pro	Ser	Lys	Val	Ala	Ala	Ala	Ala	Ser	Cys	Leu	Ser	Gln	Lys	Val	Leu			
		305			310					315				320				
Gly	Gln	Gly	Lys	Trp	Asn	Leu	Lys	Gln	Gln	Tyr	Tyr	Thr	Gly	Tyr	Thr			
				325					330					335				
Glu	Asn	Glu	Val	Leu	Glu	Val	Met	Gln	His	Met	Ala	Lys	Asn	Val	Val			
			340					345					350					
Lys	Val	Asn	Glu	Asn	Leu	Thr	Lys	Phe	Ile	Ala	Ile	Lys	Asn	Lys	Tyr			
		355					360					365						
Ala	Ser	Ser	Lys	Leu	Leu	Lys	Ile	Ser	Met	Ile	Pro	Gln	Leu	Asn	Ser			
		370				375					380							
Lys	Ala	Val	Lys	Asp	Leu	Ala	Ser	Pro	Leu	Ile	Gly	Arg	Ser					
		385				390					395							

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<210> 188
<211> 376
<212> PRT
<213> Homo sapiens
<400> 188
Met Gln Trp Ala Ser Leu Leu Leu Leu Ala Gly Leu Phe Ser Leu Ser
1      5      10
Gln Ala Gln Tyr Glu Asp Asp Pro His Trp Trp Phe His Tyr Leu Arg
20     25     30
Ser Gln Gln Ser Thr Tyr Tyr Asp Pro Tyr Asp Pro Tyr Pro Tyr Glu
35     40     45
Thr Tyr Glu Pro Tyr Pro Tyr Gly Val Asp Glu Gly Pro Ala Tyr Thr
50     55     60
Tyr Gly Ser Pro Ser Pro Pro Asp Pro Arg Asp Cys Pro Gln Glu Cys
65     70     75     80
Asp Cys Pro Pro Asn Phe Leu Thr Ala Met Tyr Cys Asp Asn Arg Asn
85     90     95
Leu Lys Tyr Leu Pro Phe Val Pro Ser Arg Met Lys Tyr Val Tyr Phe
100    105    110
Gln Asn Asn Gln Ile Thr Ser Ile Gln Glu Gly Val Phe Asp Asn Ala
115    120    125
Thr Gly Leu Leu Trp Ile Ala Leu His Gly Asn Gln Ile Thr Ser Asp
130    135    140
Lys Val Gly Arg Lys Val Phe Ser Lys Leu Arg His Leu Glu Arg Leu
145    150    155    160
Tyr Leu Asp His Asn Asn Leu Thr Arg Met Pro Gly Pro Leu Pro Arg
165    170    175
Ser Leu Arg Glu Leu His Leu Asp His Asn Gln Ile Ser Arg Val Pro
180    185    190
Asn Asn Ala Leu Glu Gly Leu Glu Asn Leu Thr Ala Leu Tyr Leu Gln
195    200    205
His Asp Glu Ile Gln Glu Val Gly Ser Ser Met Arg Gly Leu Arg Ser
210    215    220
Leu Ile Leu Leu Asp Leu Ser Tyr Asn His Leu Arg Lys Val Pro Asp
225    230    235    240
Gly Leu Pro Ser Ala Leu Glu Gln Leu Tyr Met Glu His Asn Asn Val
245    250    255
Tyr Thr Val Pro Asp Ser Tyr Phe Arg Gly Ala Pro Lys Leu Leu Tyr
260    265    270
Val Arg Leu Ser His Asn Ser Leu Thr Asn Asn Gly Leu Ala Ser Asn
275    280    285
Thr Phe Asn Ser Ser Ser Leu Leu Glu Leu Asp Leu Ser Tyr Asn Gln
290    295    300
Leu Gln Lys Ile Pro Pro Val Asn Thr Asn Leu Glu Asn Leu Tyr Leu
305    310    315    320
Gln Gly Asn Arg Ile Asn Glu Phe Ser Ile Ser Ser Phe Cys Thr Val
325    330    335
Val Asp Val Val Asn Phe Ser Lys Leu Gln Val Val Arg Leu Asp Gly
340    345    350
Asn Glu Ile Lys Arg Ser Ala Met Pro Ala Asp Ala Pro Leu Cys Leu
355    360    365
Arg Leu Ala Ser Leu Ile Glu Ile
370    375

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<210> 189
<211> 535
<212> PRT
<213> Homo sapiens
<400> 189
Met Glu Glu Gly Ala Arg His Arg Asn Asn Thr Glu Lys Lys His Pro
1      5      10
Gly Gly Gly Glu Ser Asp Ala Ser Pro Glu Ala Gly Ser Gly Gly Gly
20     25     30
Gly Val Ala Leu Lys Lys Glu Ile Gly Leu Val Ser Ala Cys Gly Ile
35     40     45
Ile Val Gly Asn Ile Ile Gly Ser Gly Ile Phe Val Ser Pro Lys Gly
50     55     60
Val Leu Glu Asn Ala Gly Ser Val Gly Leu Ala Leu Ile Val Trp Ile

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65					70					75				80	
Val	Thr	Gly	Phe	Ile	Thr	Val	Val	Gly	Ala	Leu	Cys	Tyr	Ala	Glu	Leu
				85					90					95	
Gly	Val	Thr	Ile	Pro	Lys	Ser	Gly	Gly	Asp	Tyr	Ser	Tyr	Val	Lys	Asp
			100					105					110		
Ile	Phe	Gly	Gly	Leu	Ala	Gly	Phe	Leu	Arg	Leu	Trp	Ile	Ala	Val	Leu
		115				120						125			
Val	Ile	Tyr	Pro	Thr	Asn	Gln	Ala	Val	Ile	Ala	Leu	Thr	Phe	Ser	Asn
	130				135						140				
Tyr	Val	Leu	Gln	Pro	Leu	Phe	Pro	Thr	Cys	Phe	Pro	Pro	Glu	Ser	Gly
145					150					155					160
Leu	Arg	Leu	Leu	Ala	Ala	Ile	Cys	Leu	Leu	Leu	Leu	Thr	Trp	Val	Asn
			165					170						175	
Cys	Ser	Ser	Val	Arg	Trp	Ala	Thr	Arg	Val	Gln	Asp	Ile	Phe	Thr	Ala
			180					185					190		
Gly	Lys	Leu	Leu	Ala	Leu	Ala	Leu	Ile	Ile	Ile	Met	Gly	Ile	Val	Gln
	195					200						205			
Ile	Cys	Lys	Gly	Glu	Tyr	Phe	Trp	Leu	Glu	Pro	Lys	Asn	Ala	Phe	Glu
	210					215					220				
Asn	Phe	Gln	Glu	Pro	Asp	Ile	Gly	Leu	Val	Ala	Leu	Ala	Phe	Leu	Gln
225					230					235					240
Gly	Ser	Phe	Ala	Tyr	Gly	Gly	Trp	Asn	Phe	Leu	Asn	Tyr	Val	Thr	Glu
			245					250						255	
Glu	Leu	Val	Asp	Pro	Tyr	Lys	Asn	Leu	Pro	Arg	Ala	Ile	Phe	Ile	Ser
		260						265					270		
Ile	Pro	Leu	Val	Thr	Phe	Val	Tyr	Val	Phe	Ala	Asn	Val	Ala	Tyr	Val
	275					280						285			
Thr	Ala	Met	Ser	Pro	Gln	Glu	Leu	Leu	Ala	Ser	Asn	Ala	Val	Ala	Val
	290				295						300				
Thr	Phe	Gly	Glu	Lys	Leu	Leu	Gly	Val	Met	Ala	Trp	Ile	Met	Pro	Ile
305					310					315					320
Ser	Val	Ala	Leu	Ser	Thr	Phe	Gly	Gly	Val	Asn	Gly	Ser	Leu	Phe	Thr
			325					330						335	
Ser	Ser	Arg	Leu	Phe	Phe	Ala	Gly	Ala	Arg	Glu	Gly	His	Leu	Pro	Ser
			340					345					350		
Val	Leu	Ala	Met	Ile	His	Val	Lys	Arg	Cys	Thr	Pro	Ile	Pro	Ala	Leu
	355					360						365			
Leu	Phe	Thr	Cys	Ile	Ser	Thr	Leu	Leu	Met	Leu	Val	Thr	Ser	Asp	Met
	370					375					380				
Tyr	Thr	Leu	Ile	Asn	Tyr	Val	Gly	Phe	Ile	Asn	Tyr	Leu	Phe	Tyr	Gly
385					390					395					400
Val	Thr	Val	Ala	Gly	Gln	Ile	Val	Leu	Arg	Trp	Lys	Lys	Pro	Asp	Ile
			405					410						415	
Pro	Arg	Pro	Ile	Lys	Ile	Asn	Leu	Leu	Phe	Pro	Ile	Ile	Tyr	Leu	Leu
			420					425					430		
Phe	Trp	Ala	Phe	Leu	Leu	Val	Phe	Ser	Leu	Trp	Ser	Glu	Pro	Val	Val
	435					440						445			
Cys	Gly	Ile	Gly	Leu	Ala	Ile	Met	Leu	Thr	Gly	Val	Pro	Val	Tyr	Phe
	450					455					460				
Leu	Gly	Val	Tyr	Trp	Gln	His	Lys	Pro	Lys	Cys	Phe	Ser	Asp	Phe	Ile
465					470					475					480
Glu	Leu	Leu	Thr	Leu	Val	Ser	Gln	Lys	Met	Cys	Val	Val	Val	Tyr	Pro
			485						490					495	
Glu	Val	Glu	Arg	Gly	Ser	Gly	Thr	Glu	Glu	Ala	Asn	Glu	Asp	Met	Glu
		500						505					510		
Glu	Gln	Gln	Gln	Pro	Met	Tyr	Gln	Pro	Thr	Pro	Thr	Lys	Asp	Lys	Asp
		515					520					525			
Val	Ala	Gly	Gln	Pro	Gln	Pro									
	530					535									

<210> 190

<211> 225

<212> PRT

<213> Homo sapiens

<400> 190

Met	Asn	Ser	Asn	Val	Glu	Asn	Leu	Pro	Pro	His	Ile	Ile	Arg	Leu	Val
1				5					10					15	

Tyr	Lys	Glu	Val	Thr	Thr	Leu	Thr	Ala	Asp	Pro	Pro	Asp	Gly	Ile	Lys
			20					25					30		

Val Phe Pro Asn Glu Glu Asp Leu Thr Asp Leu Gln Val Thr Ile Glu
 35 40 45
 Gly Pro Glu Gly Thr Pro Tyr Ala Gly Gly Leu Phe Arg Met Lys Leu
 50 55 60
 Leu Leu Gly Lys Asp Phe Pro Ala Ser Pro Pro Lys Gly Tyr Phe Leu
 65 70 75 80
 Thr Lys Ile Phe His Pro Asn Val Gly Ala Asn Gly Glu Ile Cys Val
 85 90
 Asn Val Leu Lys Arg Asp Trp Thr Ala Glu Leu Gly Ile Arg His Val
 100 105 110
 Leu Leu Thr Ile Lys Cys Leu Leu Ile His Pro Asn Pro Glu Ser Ala
 115 120 125
 Leu Asn Glu Glu Ala Gly Arg Leu Leu Leu Glu Asn Tyr Glu Glu Tyr
 130 135 140
 Ala Ala Arg Ala Arg Leu Leu Thr Glu Ile His Gly Gly Ala Gly Gly
 145 150 155 160
 Pro Ser Gly Arg Ala Glu Ala Gly Arg Ala Leu Ala Ser Gly Thr Glu
 165 170 175
 Ala Ser Ser Thr Asp Pro Gly Ala Pro Gly Gly Pro Gly Gly Ala Glu
 180 185 190
 Gly Pro Met Ala Lys Lys His Ala Gly Glu Arg Asp Lys Lys Leu Ala
 195 200 205
 Ala Lys Lys Lys Thr Asp Lys Lys Arg Ala Leu Arg Ala Leu Arg Arg
 210 215 220
 Leu
 225

<210> 191

<211> 485

<212> PRT

<213> Homo sapiens

<400> 191

Met Arg Lys Arg Ala Pro Gln Ser Glu Met Ala Pro Ala Gly Val Ser
 1 5 10 15
 Leu Arg Ala Thr Ile Leu Cys Leu Leu Ala Trp Ala Gly Leu Ala Ala
 20 25 30
 Gly Asp Arg Val Tyr Ile His Pro Phe His Leu Val Ile His Asn Glu
 35 40 45
 Ser Thr Cys Glu Gln Leu Ala Lys Ala Asn Ala Gly Lys Pro Lys Asp
 50 55 60
 Pro Thr Phe Ile Pro Ala Pro Ile Gln Ala Lys Thr Ser Pro Val Asp
 65 70 75 80
 Glu Lys Ala Leu Gln Asp Gln Leu Val Leu Val Ala Ala Lys Leu Asp
 85 90 95
 Thr Glu Asp Lys Leu Arg Ala Ala Met Val Gly Met Leu Ala Asn Phe
 100 105 110
 Leu Gly Phe Arg Ile Tyr Gly Met His Ser Glu Leu Trp Gly Val Val
 115 120 125
 His Gly Ala Thr Val Leu Ser Pro Thr Ala Val Phe Gly Thr Leu Ala
 130 135 140
 Ser Leu Tyr Leu Gly Ala Leu Asp His Thr Ala Asp Arg Leu Gln Ala
 145 150 155 160
 Ile Leu Gly Val Pro Trp Lys Asp Lys Asn Cys Thr Ser Arg Leu Asp
 165 170 175
 Ala His Lys Val Leu Ser Ala Leu Gln Ala Val Gln Gly Leu Leu Val
 180 185 190
 Ala Gln Gly Arg Ala Asp Ser Gln Ala Gln Leu Leu Leu Ser Thr Val
 195 200 205
 Val Gly Val Phe Thr Ala Pro Gly Leu His Leu Lys Gln Pro Phe Val
 210 215 220
 Gln Gly Leu Ala Leu Tyr Thr Pro Val Val Leu Pro Arg Ser Leu Asp
 225 230 235 240
 Phe Thr Glu Leu Asp Val Ala Ala Glu Lys Ile Asp Arg Phe Met Gln
 245 250 255
 Ala Val Thr Gly Trp Lys Thr Gly Cys Ser Leu Met Gly Ala Ser Val
 260 265 270
 Asp Ser Thr Leu Ala Phe Asn Thr Tyr Val His Phe Gln Gly Lys Met
 275 280 285
 Lys Gly Phe Ser Leu Leu Ala Glu Pro Gln Glu Phe Trp Val Asp Asn

```

      290      295      300
Ser Thr Ser Val Ser Val Pro Met Leu Ser Gly Met Gly Thr Phe Gln
305      310      315      320
His Trp Ser Asp Ile Gln Asp Asn Phe Ser Val Thr Gln Val Pro Phe
      325      330      335
Thr Glu Ser Ala Cys Leu Leu Leu Ile Gln Pro His Tyr Ala Ser Asp
      340      345      350
Leu Asp Lys Val Glu Gly Leu Thr Phe Gln Gln Asn Ser Leu Asn Trp
      355      360      365
Met Lys Lys Leu Ser Pro Arg Thr Ile His Leu Thr Met Pro Gln Leu
      370      375      380
Val Leu Gln Gly Ser Tyr Asp Leu Gln Asp Leu Leu Ala Gln Ala Glu
385      390      395      400
Leu Pro Ala Ile Leu His Thr Glu Leu Asn Leu Gln Lys Leu Ser Asn
      405      410      415
Asp Arg Ile Arg Val Gly Glu Val Leu Asn Ser Ile Phe Phe Glu Leu
      420      425      430
Glu Ala Asp Glu Arg Glu Pro Thr Glu Ser Thr Gln Gln Leu Asn Lys
      435      440      445
Pro Glu Val Leu Glu Val Thr Leu Asn Arg Pro Phe Leu Phe Ala Val
450      455      460
Tyr Asp Gln Ser Ala Thr Ala Leu His Phe Leu Gly Arg Val Ala Asn
465      470      475      480
Pro Leu Ser Thr Ala
      485

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<210> 192

<211> 279

<212> PRT

<213> Homo sapiens

<400> 192

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Met Thr Glu Arg Phe Asp Cys His His Cys Asn Glu Ser Leu Phe Gly
1      5      10      15
Lys Lys Tyr Ile Leu Arg Glu Glu Ser Pro Tyr Cys Val Val Cys Phe
      20      25      30
Glu Thr Leu Phe Ala Asn Thr Cys Glu Glu Cys Gly Lys Pro Ile Gly
      35      40      45
Cys Asp Cys Lys Asp Leu Ser Tyr Lys Asp Arg His Trp His Glu Ala
50      55      60
Cys Phe His Cys Ser Gln Cys Arg Asn Ser Leu Val Asp Lys Pro Phe
65      70      75      80
Ala Ala Lys Glu Asp Gln Leu Leu Cys Thr Asp Cys Tyr Ser Asn Glu
      85      90      95
Tyr Ser Ser Lys Cys Gln Glu Cys Lys Lys Thr Ile Met Pro Gly Thr
      100      105      110
Arg Lys Met Glu Tyr Lys Gly Ser Ser Trp His Glu Thr Cys Phe Ile
      115      120      125
Cys His Arg Cys Gln Gln Pro Ile Gly Thr Lys Ser Phe Ile Pro Lys
130      135      140
Asp Asn Gln Asn Phe Cys Val Pro Cys Tyr Glu Lys Gln His Ala Met
145      150      155      160
Gln Cys Val Gln Cys Lys Lys Pro Ile Thr Thr Gly Gly Val Thr Tyr
      165      170      175
Arg Glu Gln Pro Trp His Lys Glu Cys Phe Val Cys Thr Ala Cys Arg
      180      185      190
Lys Gln Leu Ser Gly Gln Arg Phe Thr Ala Arg Asp Asp Phe Ala Tyr
195      200      205
Cys Leu Asn Cys Phe Cys Asp Leu Tyr Ala Lys Lys Cys Ala Gly Cys
210      215      220
Thr Asn Pro Ile Ser Gly Leu Gly Gly Thr Lys Tyr Ile Ser Phe Glu
225      230      235      240
Glu Arg Gln Trp His Asn Asp Cys Phe Asn Cys Lys Lys Cys Ser Leu
      245      250      255
Ser Leu Val Gly Arg Gly Phe Leu Thr Glu Arg Asp Asp Ile Leu Cys
260      265      270
Pro Asp Cys Gly Lys Asp Ile
      275

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<210> 193


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<211> 738
<212> PRT
<213> Homo sapiens
<400> 193
Met Glu Lys Ser Arg Met Asn Leu Pro Lys Gly Pro Asp Thr Leu Cys
1      5      10      15
Phe Asp Lys Asp Glu Phe Met Lys Glu Asp Phe Asp Val Asp His Phe
20
Val Ser Asp Cys Arg Lys Arg Val Gln Leu Glu Glu Leu Arg Asp Asp
35      40      45
Leu Glu Leu Tyr Tyr Lys Leu Leu Lys Thr Ala Met Val Glu Leu Ile
50      55      60
Asn Lys Asp Tyr Ala Asp Phe Val Asn Leu Ser Thr Asn Leu Val Gly
65      70      75      80
Met Asp Lys Ala Leu Asn Gln Leu Ser Val Pro Leu Gly Gln Leu Arg
85      90      95
Glu Glu Val Leu Ser Leu Arg Ser Ser Val Ser Glu Gly Ile Arg Ala
100      105      110
Val Asp Glu Arg Met Ser Lys Gln Glu Asp Ile Arg Lys Lys Lys Met
115      120      125
Cys Val Leu Arg Leu Ile Gln Val Ile Arg Ser Val Glu Lys Ile Glu
130      135      140
Lys Ile Leu Asn Ser Gln Ser Ser Lys Glu Thr Ser Ala Leu Glu Ala
145      150      155      160
Ser Ser Pro Leu Leu Thr Gly Gln Ile Leu Glu Arg Ile Ala Thr Glu
165      170      175
Phe Asn Gln Leu Gln Phe His Ala Val Gln Ser Lys Gly Met Pro Leu
180      185      190
Leu Asp Lys Val Arg Pro Arg Ile Ala Gly Ile Thr Ala Met Leu Gln
195      200      205
Gln Ser Leu Glu Gly Leu Leu Leu Glu Gly Leu Gln Thr Ser Asp Val
210      215      220
Asp Ile Ile Arg His Cys Leu Arg Thr Tyr Ala Thr Ile Asp Lys Thr
225      230      235      240
Arg Asp Ala Glu Ala Leu Val Gly Gln Val Leu Val Lys Pro Tyr Ile
245      250      255
Asp Glu Val Ile Ile Glu Gln Phe Val Glu Ser His Pro Asn Gly Leu
260      265      270
Gln Val Met Tyr Asn Lys Leu Leu Glu Phe Val Pro His His Cys Arg
275      280      285
Leu Leu Arg Glu Val Thr Gly Gly Ala Ile Ser Ser Glu Lys Gly Asn
290      295      300
Thr Val Pro Gly Tyr Asp Phe Leu Val Asn Ser Val Trp Pro Gln Ile
305      310      315      320
Val Gln Gly Leu Glu Lys Leu Pro Ser Leu Phe Asn Pro Gly Asn
325      330      335
Pro Asp Ala Phe His Glu Lys Tyr Thr Ile Ser Met Asp Phe Val Arg
340      345      350
Arg Leu Glu Arg Gln Cys Gly Ser Gln Ala Ser Val Lys Arg Leu Arg
355      360      365
Ala His Pro Ala Tyr His Ser Phe Asn Lys Lys Trp Asn Leu Pro Val
370      375      380
Tyr Phe Gln Ile Arg Phe Arg Glu Ile Ala Gly Ser Leu Glu Ala Ala
385      390      395      400
Leu Thr Asp Val Leu Glu Asp Ala Pro Ala Glu Ser Pro Tyr Cys Leu
405      410      415
Leu Ala Ser His Arg Thr Trp Ser Ser Leu Arg Arg Cys Trp Ser Asp
420      425      430
Glu Met Phe Leu Pro Leu Leu Val His Arg Leu Trp Arg Leu Thr Leu
435      440      445
Gln Ile Leu Ala Arg Tyr Ser Val Phe Val Asn Glu Leu Ser Leu Arg
450      455      460
Pro Ile Ser Asn Glu Ser Pro Lys Glu Ile Lys Lys Pro Leu Val Thr
465      470      475      480
Gly Ser Lys Glu Pro Ser Ile Thr Gln Gly Asn Thr Glu Asp Gln Gly
485      490      495
Ser Gly Pro Ser Glu Thr Lys Pro Val Val Ser Ile Ser Arg Thr Gln
500      505      510
Leu Val Tyr Val Val Ala Asp Leu Asp Lys Leu Gln Glu Gln Leu Pro

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<210> 194
<211> 963
<212> PRT
<213> Homo sapiens
<400> 194
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Met	Ala	Val	Phe	Pro	Trp	His	Ser	Arg	Asn	Arg	Asn	Tyr	Lys	Ala	Glu
1			5						10					15	
Phe	Ala	Ser	Cys	Arg	Leu	Glu	Ala	Val	Pro	Leu	Glu	Phe	Gly	Asp	Tyr
			20					25					30		
His	Pro	Leu	Lys	Pro	Ile	Thr	Val	Thr	Glu	Ser	Lys	Thr	Lys	Lys	Val
		35				40					45				
Asn	Arg	Lys	Gly	Ser	Thr	Ser	Ser	Thr	Ser	Ser	Ser	Ser	Ser	Ser	Ser
	50				55						60				
Val	Val	Asp	Pro	Leu	Ser	Ser	Val	Leu	Asp	Gly	Thr	Asp	Pro	Leu	Ser
65				70					75					80	
Met	Phe	Ala	Ala	Thr	Ala	Asp	Pro	Ala	Ala	Leu	Ala	Ala	Ala	Met	Asp
			85					90						95	
Ser	Ser	Arg	Arg	Lys	Arg	Asp	Arg	Asp	Asp	Asn	Ser	Val	Val	Gly	Ser
			100					105				110			
Asp	Phe	Glu	Pro	Trp	Thr	Asn	Lys	Arg	Gly	Glu	Ile	Leu	Ala	Arg	Tyr
	115					120					125				
Thr	Thr	Thr	Glu	Lys	Leu	Ser	Ile	Asn	Leu	Phe	Met	Gly	Ser	Glu	Lys
	130					135					140				
Gly	Lys	Ala	Gly	Thr	Ala	Thr	Leu	Ala	Met	Ser	Glu	Lys	Val	Arg	Thr
145				150					155					160	
Arg	Leu	Glu	Glu	Leu	Asp	Asp	Phe	Glu	Glu	Gly	Ser	Gln	Lys	Glu	Leu
			165					170						175	
Leu	Asn	Leu	Thr	Gln	Gln	Asp	Tyr	Val	Asn	Arg	Ile	Glu	Glu	Leu	Asn
			180					185					190		
Gln	Ser	Leu	Lys	Asp	Ala	Trp	Ala	Ser	Asp	Gln	Lys	Val	Lys	Ala	Leu
	195					200					205				
Lys	Ile	Val	Ile	Gln	Cys	Ser	Lys	Leu	Leu	Ser	Asp	Thr	Ser	Val	Ile
	210					215					220				
Gln	Phe	Tyr	Pro	Ser	Lys	Phe	Val	Leu	Ile	Thr	Asp	Ile	Leu	Asp	Thr
225				230					235					240	
Phe	Gly	Lys	Leu	Val	Tyr	Glu	Arg	Ile	Phe	Ser	Met	Cys	Val	Asp	Ser
			245					250						255	
Arg	Ser	Val	Leu	Pro	Asp	His	Phe	Ser	Pro	Glu	Asn	Ala	Asn	Asp	Thr
			260					265					270		

Ala	Lys	Glu	Thr	Cys	Leu	Asn	Trp	Phe	Phe	Lys	Ile	Ala	Ser	Ile	Arg
		275					280					285			
Glu	Leu	Ile	Pro	Arg	Phe	Tyr	Val	Glu	Ala	Ser	Ile	Leu	Lys	Cys	Asn
	290					295					300				
Lys	Phe	Leu	Ser	Lys	Thr	Gly	Ile	Ser	Glu	Cys	Leu	Pro	Arg	Leu	Thr
305				310					315					320	
Cys	Met	Ile	Arg	Gly	Ile	Gly	Asp	Pro	Leu	Val	Ser	Val	Tyr	Ala	Arg
				325				330						335	
Ala	Tyr	Leu	Cys	Arg	Val	Gly	Met	Glu	Val	Ala	Pro	His	Leu	Lys	Glu
		340						345					350		
Thr	Leu	Asn	Lys	Asn	Phe	Phe	Asp	Phe	Leu	Leu	Thr	Phe	Lys	Gln	Ile
	355						360					365			
His	Gly	Asp	Thr	Val	Gln	Asn	Gln	Leu	Val	Val	Gln	Gly	Val	Glu	Leu
	370					375					380				
Pro	Ser	Tyr	Leu	Pro	Leu	Tyr	Pro	Pro	Ala	Met	Asp	Trp	Ile	Phe	Gln
385				390					395					400	
Cys	Ile	Ser	Tyr	His	Ala	Pro	Glu	Ala	Leu	Leu	Thr	Glu	Met	Met	Glu
				405				410						415	
Arg	Cys	Lys	Lys	Leu	Gly	Asn	Asn	Ala	Leu	Leu	Leu	Asn	Ser	Val	Met
		420						425					430		
Ser	Ala	Phe	Arg	Ala	Glu	Phe	Ile	Ala	Thr	Arg	Ser	Met	Asp	Phe	Ile
	435						440					445			
Gly	Met	Ile	Lys	Glu	Cys	Asp	Glu	Ser	Gly	Phe	Pro	Lys	His	Leu	Leu
	450					455					460				
Phe	Arg	Ser	Leu	Gly	Leu	Asn	Leu	Ala	Leu	Ala	Asp	Pro	Pro	Glu	Ser
465				470					475					480	
Asp	Arg	Leu	Gln	Ile	Leu	Asn	Glu	Ala	Trp	Lys	Val	Ile	Thr	Lys	Leu
			485					490						495	
Lys	Asn	Pro	Gln	Asp	Tyr	Ile	Asn	Cys	Ala	Glu	Val	Trp	Val	Glu	Tyr
	500							505					510		
Thr	Cys	Lys	His	Phe	Thr	Lys	Arg	Glu	Val	Asn	Thr	Val	Leu	Ala	Asp
	515						520					525			
Val	Ile	Lys	His	Met	Thr	Pro	Asp	Arg	Ala	Phe	Glu	Asp	Ser	Tyr	Pro
	530					535					540				
Gln	Leu	Gln	Leu	Ile	Ile	Lys	Lys	Val	Ile	Ala	His	Phe	His	Asp	Phe
545				550					555					560	
Ser	Val	Leu	Phe	Ser	Val	Glu	Lys	Phe	Leu	Pro	Phe	Leu	Asp	Met	Phe
			565					570						575	
Gln	Lys	Glu	Ser	Val	Arg	Val	Glu	Val	Cys	Lys	Cys	Ile	Met	Asp	Ala
	580							585					590		
Phe	Ile	Lys	His	Gln	Gln	Glu	Pro	Thr	Lys	Asp	Pro	Val	Ile	Leu	Asn
	595						600					605			
Ala	Leu	Leu	His	Val	Cys	Lys	Thr	Met	His	Asp	Ser	Val	Asn	Ala	Leu
	610					615					620				
Thr	Leu	Glu	Asp	Glu	Lys	Arg	Met	Leu	Ser	Tyr	Leu	Ile	Asn	Gly	Phe
625				630					635					640	
Ile	Lys	Met	Val	Ser	Phe	Gly	Arg	Asp	Phe	Glu	Gln	Gln	Leu	Ser	Phe
			645					650						655	
Tyr	Val	Glu	Ser	Arg	Ser	Met	Phe	Cys	Asn	Leu	Glu	Pro	Val	Leu	Val
	660						665						670		
Gln	Leu	Ile	His	Ser	Val	Asn	Arg	Leu	Ala	Met	Glu	Thr	Arg	Lys	Val
	675					680						685			
Met	Lys	Gly	Asn	His	Ser	Arg	Lys	Thr	Ala	Ala	Phe	Val	Arg	Ala	Cys
	690					695					700				
Val	Ala	Tyr	Cys	Phe	Ile	Thr	Ile	Pro	Ser	Leu	Ala	Gly	Ile	Phe	Thr
705				710					715					720	
Arg	Leu	Asn	Leu	Tyr	Leu	His	Ser	Gly	Gln	Val	Ala	Leu	Ala	Asn	Gln
			725					730						735	
Cys	Leu	Ser	Gln	Ala	Asp	Ala	Phe	Phe	Lys	Ala	Ala	Ile	Ser	Leu	Val
	740						745						750		
Pro	Glu	Val	Pro	Lys	Met	Ile	Asn	Ile	Asp	Gly	Lys	Met	Arg	Pro	Ser
	755					760						765			
Glu	Ser	Phe	Leu	Leu	Glu	Phe	Leu	Cys	Asn	Phe	Phe	Ser	Thr	Leu	Leu
	770				775						780				
Ile	Val	Pro	Asp	His	Pro	Glu	His	Gly	Val	Leu	Phe	Leu	Val	Arg	Glu
785				790					795					800	
Leu	Leu	Asn	Val	Ile	Gln	Asp	Tyr	Thr	Trp	Glu	Asp	Asn	Ser	Asp	Glu
			805					810						815	
Lys	Ile	Arg	Ile	Tyr	Thr	Cys	Val	Leu	His	Leu	Leu	Ser	Ala	Met	Ser

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<210> 195
<211> 494
<212> PRT
<213> Homo sapiens
<400> 195
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- 222 -

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Ile Ser Lys Tyr Leu Met Asp Glu Gly Ala His Leu His Ile Tyr Asp
      355      360      365
Pro Lys Val Pro Arg Glu Gln Ile Val Val Asp Leu Ser His Pro Gly
      370      375      380
Val Ser Glu Asp Asp Gln Val Ser Arg Leu Val Thr Ile Ser Lys Asp
385      390      395      400
Pro Tyr Glu Ala Cys Asp Gly Ala His Ala Val Val Ile Cys Thr Glu
      405      410      415
Trp Asp Met Phe Lys Glu Leu Asp Tyr Glu Arg Ile His Lys Lys Met
      420      425      430
Leu Lys Pro Ala Phe Ile Phe Asp Gly Arg Arg Val Leu Asp Gly Leu
      435      440      445
His Asn Glu Leu Gln Thr Ile Gly Phe Gln Ile Glu Thr Ile Gly Lys
      450      455      460
Lys Val Ser Ser Lys Arg Ile Pro Tyr Ala Pro Ser Gly Glu Ile Pro
465      470      475      480
Lys Phe Ser Leu Gln Asp Pro Pro Asn Lys Lys Pro Lys Val
      485      490

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<210> 196
<211> 205
<212> PRT
<213> Homo sapiens
<400> 196

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```

Met Ala Leu Gln Leu Ser Arg Glu Gln Gly Ile Thr Leu Arg Gly Ser
1      5      10      15
Ala Glu Ile Val Ala Glu Phe Phe Ser Phe Gly Ile Asn Ser Ile Leu
      20      25      30
Tyr Gln Arg Gly Ile Tyr Pro Ser Glu Thr Phe Thr Arg Val Gln Lys
      35      40      45
Tyr Gly Leu Thr Leu Leu Val Thr Thr Asp Leu Glu Leu Ile Lys Tyr
      50      55      60
Leu Asn Asn Val Val Glu Gln Leu Lys Asp Trp Leu Tyr Lys Cys Ser
65      70      75      80
Val Gln Lys Leu Val Val Ile Ser Asn Ile Glu Ser Gly Glu Val
      85      90      95
Leu Glu Arg Trp Gln Phe Asp Ile Glu Cys Asp Lys Thr Ala Lys Asp
      100      105      110
Asp Ser Ala Pro Arg Glu Lys Ser Gln Lys Ala Ile Gln Asp Glu Ile
      115      120      125
Arg Ser Val Ile Arg Gln Ile Thr Ala Thr Val Thr Phe Leu Pro Leu
      130      135      140
Leu Glu Val Ser Cys Ser Phe Asp Leu Leu Ile Tyr Thr Asp Lys Asp
145      150      155      160
Leu Val Val Pro Glu Lys Trp Glu Glu Ser Gly Pro Gln Phe Ile Thr
      165      170      175
Asn Ser Glu Glu Val Arg Leu Arg Ser Phe Thr Thr Thr Ile His Lys
      180      185      190
Val Asn Ser Met Val Ala Tyr Lys Ile Pro Val Asn Asp
      195      200      205

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<210> 197
<211> 427
<212> PRT
<213> Homo sapiens
<400> 197

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```

Met Ala Pro Lys Lys Arg Pro Glu Thr Gln Lys Thr Ser Glu Ile Val
1      5      10      15
Leu Arg Pro Arg Asn Lys Arg Ser Arg Ser Pro Leu Glu Leu Glu Pro
      20      25      30
Glu Ala Lys Lys Leu Cys Ala Lys Gly Ser Gly Pro Ser Arg Arg Cys
      35      40      45
Asp Ser Asp Cys Leu Trp Val Gly Leu Ala Gly Pro Gln Ile Leu Pro
      50      55      60
Pro Cys Arg Ser Ile Val Arg Thr Leu His Gln His Lys Leu Gly Arg
65      70      75      80
Ala Ser Trp Pro Ser Val Gln Gln Gly Leu Gln Gln Ser Phe Leu His
      85      90      95
Thr Leu Asp Ser Tyr Arg Ile Leu Gln Lys Ala Ala Pro Phe Asp Arg

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```

      100      105      110
Arg Ala Thr Ser Leu Ala Trp His Pro Thr His Pro Ser Thr Val Ala
      115      120      125
Val Gly Ser Lys Gly Gly Asp Ile Met Leu Trp Asn Phe Gly Ile Lys
      130      135      140
Asp Lys Pro Thr Phe Ile Lys Gly Ile Gly Ala Gly Gly Ser Ile Thr
145      150      155      160
Gly Leu Lys Phe Asn Pro Leu Asn Thr Asn Gln Phe Tyr Ala Ser Ser
      165      170      175
Met Glu Gly Thr Thr Arg Leu Gln Asp Phe Lys Gly Asn Ile Leu Arg
      180      185      190
Val Phe Ala Ser Ser Asp Thr Ile Asn Ile Trp Phe Cys Ser Leu Asp
      195      200      205
Val Ser Ala Ser Ser Arg Met Val Val Thr Gly Asp Asn Val Gly Asn
210      215      220
Val Ile Leu Leu Asn Met Asp Gly Lys Glu Leu Trp Asn Leu Arg Met
225      230      235      240
His Lys Lys Lys Val Thr His Val Ala Leu Asn Pro Cys Cys Asp Trp
      245      250      255
Phe Leu Ala Thr Ala Ser Val Asp Gln Thr Val Lys Ile Trp Asp Leu
260      265      270
Arg Gln Val Arg Gly Lys Ala Ser Phe Leu Tyr Ser Leu Pro His Arg
      275      280      285
His Pro Val Asn Ala Ala Cys Phe Ser Pro Asp Gly Ala Arg Leu Leu
290      295      300
Thr Thr Asp Gln Lys Ser Glu Ile Arg Val Tyr Ser Ala Ser Gln Trp
305      310      315      320
Asp Cys Pro Leu Gly Leu Ile Pro His Pro His Arg His Phe Gln His
      325      330      335
Leu Thr Pro Ile Lys Ala Ala Trp His Pro Arg Tyr Asn Leu Ile Val
      340      345      350
Val Gly Arg Tyr Pro Asp Pro Asn Phe Lys Ser Cys Thr Pro Tyr Glu
355      360      365
Leu Arg Thr Ile Asp Val Phe Asp Gly Asn Ser Gly Lys Met Met Cys
370      375      380
Gln Leu Tyr Asp Pro Glu Ser Ser Gly Ile Ser Ser Leu Asn Glu Phe
385      390      395      400
Asn Pro Met Gly Asp Thr Leu Ala Ser Ala Met Gly Tyr His Ile Leu
      405      410      415
Ile Trp Ser Gln Glu Glu Ala Arg Thr Arg Lys
      420      425

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<210> 198

<211> 283

<212> PRT

<213> Homo sapiens

<400> 198

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Met Glu His Gly Ser Ile Ile Thr Gln Ala Arg Arg Glu Asp Ala Leu
1      5      10      15
Val Leu Thr Lys Gln Gly Leu Val Ser Lys Ser Ser Pro Lys Lys Pro
      20      25      30
Arg Gly Arg Asn Ile Phe Lys Ala Leu Phe Cys Cys Phe Arg Ala Gln
      35      40      45
His Val Gly Gln Ser Ser Ser Ser Thr Glu Leu Ala Ala Tyr Lys Glu
      50      55      60
Glu Ala Asn Thr Ile Ala Lys Ser Asp Leu Leu Gln Cys Leu Gln Tyr
65      70      75      80
Gln Phe Tyr Gln Ile Pro Gly Thr Cys Leu Leu Pro Glu Val Thr Glu
      85      90      95
Glu Asp Gln Gly Arg Ile Cys Val Val Ile Asp Leu Asp Glu Thr Leu
      100      105      110
Val His Ser Ser Phe Lys Pro Ile Asn Asn Ala Asp Phe Ile Val Pro
      115      120      125
Ile Glu Ile Glu Gly Thr Thr His Gln Val Tyr Val Leu Lys Arg Pro
      130      135      140
Tyr Val Asp Glu Phe Leu Arg Arg Met Gly Glu Leu Phe Glu Cys Val
145      150      155      160
Leu Phe Thr Ala Ser Leu Ala Lys Tyr Ala Asp Pro Val Thr Asp Leu
      165      170      175

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Leu Asp Arg Cys Gly Val Phe Arg Ala Arg Leu Phe Arg Glu Ser Cys
 180 185 190
 Val Phe His Gln Gly Cys Tyr Val Lys Asp Leu Ser Arg Leu Gly Arg
 195 200 205
 Asp Leu Arg Lys Thr Leu Ile Leu Asp Asn Ser Pro Ala Ser Tyr Ile
 210 215 220
 Phe His Pro Glu Asn Ala Val Pro Val Gln Ser Trp Phe Asp Asp Met
 225 230 235 240
 Ala Asp Thr Glu Leu Leu Asn Leu Ile Pro Ile Phe Glu Glu Leu Ser
 245 250 255
 Gly Ala Glu Asp Val Tyr Thr Ser Leu Gly Ala Ala Ala Gly Pro Leu
 260 265 270
 Ala Cys Pro Ala Ser Lys Arg Arg Pro Ser Gln
 275 280

<210> 199
 <211> 239
 <212> PRT
 <213> Homo sapiens
 <400> 199

Met Ala His Ala Gly Arg Thr Gly Tyr Asp Asn Arg Glu Ile Val Met
 1 5 10 15
 Lys Tyr Ile His Tyr Lys Leu Ser Gln Arg Gly Tyr Glu Trp Asp Ala
 20 25 30
 Gly Asp Val Gly Ala Ala Pro Pro Gly Ala Ala Pro Ala Pro Gly Ile
 35 40 45
 Phe Ser Ser Gln Pro Gly His Thr Pro His Thr Ala Ala Ser Arg Asp
 50 55 60
 Pro Val Ala Arg Thr Ser Pro Leu Gln Thr Pro Ala Ala Pro Gly Ala
 65 70 75 80
 Ala Ala Gly Pro Ala Leu Ser Pro Val Pro Pro Val Val His Leu Thr
 85 90 95
 Leu Arg Gln Ala Gly Asp Asp Phe Ser Arg Arg Tyr Arg Arg Asp Phe
 100 105 110
 Ala Glu Met Ser Arg Gln Leu His Leu Thr Pro Phe Thr Ala Arg Gly
 115 120 125
 Arg Phe Ala Thr Val Val Glu Glu Leu Phe Arg Asp Gly Val Asn Trp
 130 135 140
 Gly Arg Ile Val Ala Phe Phe Glu Phe Gly Gly Val Met Cys Val Glu
 145 150 155 160
 Ser Val Asn Arg Glu Met Ser Pro Leu Val Asp Asn Ile Ala Leu Trp
 165 170 175
 Met Thr Glu Tyr Leu Asn Arg His Leu His Thr Trp Ile Gln Asp Asn
 180 185 190
 Gly Gly Trp Asp Ala Phe Val Glu Leu Tyr Gly Pro Ser Met Arg Pro
 195 200 205
 Leu Phe Asp Phe Ser Trp Leu Ser Leu Lys Thr Leu Leu Ser Leu Ala
 210 215 220
 Leu Val Gly Ala Cys Ile Thr Leu Gly Ala Tyr Leu Gly His Lys
 225 230 235

<210> 200
 <211> 751
 <212> PRT
 <213> Homo sapiens
 <400> 200

Met Ala Phe Arg Thr Ile Cys Val Leu Val Gly Val Phe Ile Cys Ser
 1 5 10 15
 Ile Cys Val Lys Gly Ser Ser Gln Pro Gln Ala Arg Val Tyr Leu Thr
 20 25 30
 Phe Asp Glu Leu Arg Glu Thr Lys Thr Ser Glu Tyr Phe Ser Leu Ser
 35 40 45
 His His Pro Leu Asp Tyr Arg Ile Leu Leu Met Asp Glu Asp Gln Asp
 50 55 60
 Arg Ile Tyr Val Gly Ser Lys Asp His Ile Leu Ser Leu Asn Ile Asn
 65 70 75 80
 Asn Ile Ser Gln Glu Ala Leu Ser Val Phe Trp Pro Ala Ser Thr Ile
 85 90 95
 Lys Val Glu Glu Cys Lys Met Ala Gly Lys Asp Pro Thr His Gly Cys

			100					105					110			
Gly	Asn	Phe	Val	Arg	Val	Ile	Gln	Thr	Phe	Asn	Arg	Thr	His	Leu	Tyr	
		115					120					125				
Val	Cys	Gly	Ser	Gly	Ala	Phe	Ser	Pro	Val	Cys	Thr	Tyr	Leu	Asn	Arg	
	130					135					140					
Gly	Arg	Arg	Ser	Glu	Asp	Gln	Val	Phe	Met	Ile	Asp	Ser	Lys	Cys	Glu	
145				150					155					160		
Ser	Gly	Lys	Gly	Arg	Cys	Ser	Phe	Asn	Pro	Asn	Val	Asn	Thr	Val	Ser	
			165					170						175		
Val	Met	Ile	Asn	Glu	Glu	Leu	Phe	Ser	Gly	Met	Tyr	Ile	Asp	Phe	Met	
		180						185				190				
Gly	Thr	Asp	Ala	Ala	Ile	Phe	Arg	Ser	Leu	Thr	Lys	Arg	Asn	Ala	Val	
	195					200						205				
Arg	Thr	Asp	Gln	His	Asn	Ser	Lys	Trp	Leu	Ser	Glu	Pro	Met	Phe	Val	
	210				215						220					
Asp	Ala	His	Val	Ile	Pro	Asp	Gly	Thr	Asp	Pro	Asn	Asp	Ala	Lys	Val	
225				230					235					240		
Tyr	Phe	Phe	Phe	Lys	Glu	Lys	Leu	Thr	Asp	Asn	Asn	Arg	Ser	Thr	Lys	
			245						250					255		
Gln	Ile	His	Ser	Met	Ile	Ala	Arg	Ile	Cys	Pro	Asn	Asp	Thr	Gly	Gly	
		260						265					270			
Leu	Arg	Ser	Leu	Val	Asn	Lys	Trp	Thr	Thr	Phe	Leu	Lys	Ala	Arg	Leu	
	275						280					285				
Val	Cys	Ser	Val	Thr	Asp	Glu	Asp	Gly	Pro	Glu	Thr	His	Phe	Asp	Glu	
	290				295						300					
Leu	Glu	Asp	Val	Phe	Leu	Glu	Thr	Asp	Asn	Pro	Arg	Thr	Thr	Leu		
305				310					315					320		
Val	Tyr	Gly	Ile	Phe	Thr	Thr	Ser	Ser	Ser	Val	Phe	Lys	Gly	Ser	Ala	
			325					330						335		
Val	Cys	Val	Tyr	His	Leu	Ser	Asp	Ile	Gln	Thr	Val	Phe	Asn	Gly	Pro	
		340						345					350			
Phe	Ala	His	Lys	Glu	Gly	Pro	Asn	His	Gln	Leu	Ile	Ser	Tyr	Gln	Gly	
	355					360						365				
Arg	Ile	Pro	Tyr	Pro	Arg	Pro	Gly	Thr	Cys	Pro	Gly	Gly	Ala	Phe	Thr	
	370				375						380					
Pro	Asn	Met	Arg	Thr	Thr	Lys	Glu	Phe	Pro	Asp	Asp	Val	Val	Thr	Phe	
385				390					395					400		
Ile	Arg	Asn	His	Pro	Leu	Met	Tyr	Asn	Ser	Ile	Tyr	Pro	Ile	His	Lys	
		405						410						415		
Arg	Pro	Leu	Ile	Val	Arg	Ile	Gly	Thr	Asp	Tyr	Lys	Tyr	Thr	Lys	Ile	
		420						425					430			
Ala	Val	Asp	Arg	Val	Asn	Ala	Ala	Asp	Gly	Arg	Tyr	His	Val	Leu	Phe	
	435					440										

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Ile Asn Phe Lys Val Leu Asp Ser Glu Met Val Ala Val Val Thr Asp
      660      665      670
Lys Trp Ser Pro Trp Thr Trp Ala Ser Ser Val Arg Ala Leu Pro Phe
      675      680      685
His Pro Lys Asp Ile Met Gly Ala Phe Ser His Ser Glu Met Gln Met
      690      695      700
Ile Asn Gln Tyr Cys Lys Asp Thr Arg Gln Gln His Gln Gln Gly Asp
705      710      715      720
Glu Ser Gln Lys Met Arg Gly Asp Tyr Gly Lys Leu Lys Ala Leu Ile
      725      730      735
Asn Ser Arg Lys Ser Arg Asn Arg Arg Asn Gln Leu Pro Glu Ser
      740      745      750

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<210> 201
<211> 208
<212> PRT
<213> Homo sapiens
<400> 201

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Met Lys Leu Leu Pro Ser Val Val Leu Lys Leu Phe Leu Ala Ala Val
1      5      10      15
Leu Ser Ala Leu Val Thr Gly Glu Ser Leu Glu Arg Leu Arg Gly
      20      25      30
Leu Ala Ala Gly Thr Ser Asn Pro Asp Pro Pro Thr Val Ser Thr Asp
      35      40      45
Gln Leu Leu Pro Leu Gly Gly Gly Arg Asp Arg Lys Val Arg Asp Leu
50      55      60
Gln Glu Ala Asp Leu Asp Leu Leu Arg Val Thr Leu Ser Ser Lys Pro
65      70      75      80
Gln Ala Leu Ala Thr Pro Asn Lys Glu Glu His Gly Lys Arg Lys Lys
      85      90      95
Lys Gly Lys Gly Leu Gly Lys Lys Arg Asp Pro Cys Leu Arg Lys Tyr
      100      105      110
Lys Asp Phe Cys Ile His Gly Glu Cys Lys Tyr Val Lys Glu Leu Arg
      115      120      125
Ala Pro Ser Cys Ile Cys His Pro Gly Tyr His Gly Glu Arg Cys His
      130      135      140
Gly Leu Ser Leu Pro Val Glu Asn Arg Leu Tyr Thr Tyr Asp His Thr
145      150      155      160
Thr Ile Leu Ala Val Val Ala Val Val Leu Ser Ser Val Cys Leu Leu
      165      170      175
Val Ile Val Gly Leu Leu Met Phe Arg Tyr His Arg Arg Gly Gly Tyr
      180      185      190
Asp Val Glu Asn Glu Glu Lys Val Lys Leu Gly Met Thr Asn Ser His
      195      200      205

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<210> 202
<211> 662
<212> PRT
<213> Homo sapiens
<400> 202

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Met Arg Pro Gln Ile Leu Leu Leu Leu Ala Leu Leu Thr Leu Gly Leu
1      5      10      15
Ala Ala Gln His Gln Asp Lys Val Pro Cys Lys Met Val Asp Lys Lys
      20      25      30
Val Ser Cys Gln Val Leu Gly Leu Leu Gln Val Pro Ser Val Leu Pro
      35      40      45
Pro Asp Thr Glu Thr Leu Asp Leu Ser Gly Asn Gln Leu Arg Ser Ile
50      55      60
Leu Ala Ser Pro Leu Gly Phe Tyr Thr Ala Leu Arg His Leu Asp Leu
65      70      75      80
Ser Thr Asn Glu Ile Ser Phe Leu Gln Pro Gly Ala Phe Gln Ala Leu
      85      90      95
Thr His Leu Glu His Leu Ser Leu Ala His Asn Arg Leu Ala Met Ala
      100      105      110
Thr Ala Leu Ser Ala Gly Gly Leu Gly Pro Leu Pro Arg Val Thr Ser
      115      120      125
Leu Asp Leu Ser Gly Asn Ser Leu Tyr Ser Gly Leu Leu Glu Arg Leu
      130      135      140
Leu Gly Glu Ala Pro Ser Leu His Thr Leu Ser Leu Ala Glu Asn Ser

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145          150          155          160
Leu Thr Arg Leu Thr Arg His Thr Phe Arg Asp Met Pro Ala Leu Glu
165
Gln Leu Asp Leu His Ser Asn Val Leu Met Asp Ile Glu Asp Gly Ala
180
Phe Glu Gly Leu Pro Arg Leu Thr His Leu Asn Leu Ser Arg Asn Ser
195
Leu Thr Cys Ile Ser Asp Phe Ser Leu Gln Gln Leu Arg Val Leu Asp
210
Leu Ser Cys Asn Ser Ile Glu Ala Phe Gln Thr Ala Ser Gln Pro Gln
225
Ala Glu Phe Gln Leu Thr Trp Leu Asp Leu Arg Glu Asn Lys Leu Leu
245
His Phe Pro Asp Leu Ala Ala Leu Pro Arg Leu Ile Tyr Leu Asn Leu
260
Ser Asn Asn Leu Ile Arg Leu Pro Thr Gly Pro Pro Gln Asp Ser Lys
275
Gly Ile His Ala Pro Ser Glu Gly Trp Ser Ala Leu Pro Leu Ser Ala
290
Pro Ser Gly Asn Ala Ser Gly Arg Pro Leu Ser Gln Leu Leu Asn Leu
305
Asp Leu Ser Tyr Asn Glu Ile Glu Leu Ile Pro Asp Ser Phe Leu Glu
325
His Leu Thr Ser Leu Cys Phe Leu Asn Leu Ser Arg Asn Cys Leu Arg
340
Thr Phe Glu Ala Arg Arg Leu Gly Ser Leu Pro Cys Leu Met Leu Leu
355
Asp Leu Ser His Asn Ala Leu Glu Thr Leu Glu Leu Gly Ala Arg Ala
370
Leu Gly Ser Leu Arg Thr Leu Leu Leu Gln Gly Asn Ala Leu Arg Asp
385
Leu Pro Pro Tyr Thr Phe Ala Asn Leu Ala Ser Leu Gln Arg Leu Asn
405
Leu Gln Gly Asn Arg Val Ser Pro Cys Gly Gly Pro Asp Glu Pro Gly
420
Pro Ser Gly Cys Val Ala Phe Ser Gly Ile Thr Ser Leu Arg Ser Leu
435
Ser Leu Val Asp Asn Glu Ile Glu Leu Leu Arg Ala Gly Ala Phe Leu
450
His Thr Pro Leu Thr Glu Leu Asp Leu Ser Ser Asn Pro Gly Leu Glu
465
Val Ala Thr Gly Ala Leu Gly Gly Leu Glu Ala Ser Leu Glu Val Leu
485
Ala Leu Gln Gly Asn Gly Leu Met Val Leu Gln Val Asp Leu Pro Cys
500
Phe Ile Cys Leu Lys Arg Leu Asn Leu Ala Glu Asn Arg Leu Ser His
515
Leu Pro Ala Trp Thr Gln Ala Val Ser Leu Glu Val Leu Asp Leu Arg
530
Asn Asn Ser Phe Ser Leu Leu Pro Gly Ser Ala Met Gly Gly Leu Glu
545
Thr Ser Leu Arg Arg Leu Tyr Leu Gln Gly Asn Pro Leu Ser Cys Cys
565
Gly Asn Gly Trp Leu Ala Ala Gln Leu His Gln Gly Arg Val Asp Val
580
Asp Ala Thr Gln Asp Leu Ile Cys Arg Phe Ser Ser Gln Glu Glu Val
595
Ser Leu Ser His Val Arg Pro Glu Asp Cys Glu Lys Gly Gly Leu Lys
610
Asn Ile Asn Leu Ile Ile Ile Leu Thr Phe Ile Leu Val Ser Ala Ile
625
Leu Leu Thr Thr Leu Ala Ala Cys Cys Cys Val Arg Arg Gln Lys Phe
645
Asn Gln Gln Tyr Lys Ala
660

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<210> 203
<211> 1036
<212> PRT

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<213> Homo sapiens
<400> 203
Met Gln Pro Glu Glu Gly Thr Gly Trp Leu Leu Glu Leu Leu Ser Glu
1      5      10      15
Val Gln Leu Gln Gln Tyr Phe Leu Arg Leu Arg Asp Asp Leu Asn Val
20      25      30
Thr Arg Leu Ser His Phe Glu Tyr Val Lys Asn Glu Asp Leu Glu Lys
35      40      45
Ile Gly Met Gly Arg Pro Gly Gln Arg Arg Leu Trp Glu Ala Val Lys
50      55      60
Arg Arg Lys Ala Leu Cys Lys Arg Lys Ser Trp Met Ser Lys Val Phe
65      70      75      80
Ser Gly Lys Arg Leu Glu Ala Glu Phe Pro Pro His His Ser Gln Ser
85      90      95
Thr Phe Arg Lys Thr Ser Pro Ala Pro Gly Gly Pro Ala Gly Glu Gly
100      105      110
Pro Leu Gln Ser Leu Thr Cys Leu Ile Gly Glu Lys Asp Leu Arg Leu
115      120      125
Leu Glu Lys Leu Gly Asp Gly Ser Phe Gly Val Val Arg Arg Gly Glu
130      135      140
Trp Asp Ala Pro Ser Gly Lys Thr Val Ser Val Ala Val Lys Cys Leu
145      150      155      160
Lys Pro Asp Val Leu Ser Gln Pro Glu Ala Met Asp Asp Phe Ile Arg
165      170      175
Glu Val Asn Ala Met His Ser Leu Asp His Arg Asn Leu Ile Arg Leu
180      185      190
Tyr Gly Val Val Leu Thr Pro Pro Met Lys Met Val Thr Glu Leu Ala
195      200      205
Pro Leu Gly Ser Leu Leu Asp Arg Leu Arg Lys His Gln Gly His Phe
210      215      220
Leu Leu Gly Thr Leu Ser Arg Tyr Ala Val Gln Val Ala Glu Gly Met
225      230      235      240
Gly Tyr Leu Glu Ser Lys Arg Phe Ile His Arg Asp Leu Ala Ala Arg
245      250      255
Asn Leu Leu Leu Ala Thr Arg Asp Leu Val Lys Ile Gly Asp Phe Gly
260      265      270
Leu Met Arg Ala Leu Pro Gln Asn Asp Asp His Tyr Val Met Gln Glu
275      280      285
His Arg Lys Val Pro Phe Ala Trp Cys Ala Pro Glu Ser Leu Lys Thr
290      295      300
Arg Thr Phe Ser His Ala Ser Asp Thr Trp Met Phe Gly Val Thr Leu
305      310      315      320
Trp Glu Met Phe Thr Tyr Gly Gln Glu Pro Trp Ile Gly Leu Asn Gly
325      330      335
Ser Gln Ile Leu His Lys Ile Asp Lys Glu Gly Glu Arg Leu Pro Arg
340      345      350
Pro Glu Asp Cys Pro Gln Asp Ile Tyr Asn Val Met Val Gln Cys Trp
355      360      365
Ala His Lys Pro Glu Asp Arg Pro Thr Phe Val Ala Leu Arg Asp Phe
370      375      380
Leu Leu Glu Ala Gln Pro Thr Asp Met Arg Ala Leu Gln Asp Phe Glu
385      390      395      400
Glu Pro Asp Lys Leu His Ile Gln Met Asn Asp Val Ile Thr Val Ile
405      410      415
Glu Gly Arg Ala Glu Asn Tyr Trp Trp Arg Gly Gln Asn Thr Arg Thr
420      425      430
Leu Cys Val Gly Pro Phe Pro Arg Asn Val Val Thr Ser Val Ala Gly
435      440      445
Leu Ser Ala Gln Asp Ile Ser Gln Pro Leu Gln Asn Ser Phe Ile His
450      455      460
Thr Gly His Gly Asp Ser Asp Pro Arg His Cys Trp Gly Phe Pro Asp
465      470      475      480
Arg Ile Asp Glu Leu Tyr Leu Gly Asn Pro Met Asp Pro Pro Asp Leu
485      490      495
Leu Ser Val Glu Leu Ser Thr Ser Arg Pro Pro Gln His Leu Gly Gly
500      505      510
Val Lys Lys Pro Thr Tyr Asp Pro Val Ser Glu Asp Gln Asp Pro Leu
515      520      525
Ser Ser Asp Phe Lys Arg Leu Gly Leu Arg Lys Pro Gly Leu Pro Arg

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530	535	540
Gly Leu Trp Leu Ala Lys	Pro Ser Ala Arg Val	Pro Gly Thr Lys Ala
545	550	555
Ser Arg Gly Ser Gly Ala Glu Val Thr	Leu Ile Asp Phe Gly Glu Glu	575
565	570	575
Pro Val Val Pro Ala Leu Arg Pro Cys	Pro Pro Ser Leu Ala Gln Leu	590
580	585	590
Ala Met Asp Ala Cys Ser Leu Leu Asp Glu Thr Pro	Pro Pro Gln Ser Pro	605
595	600	605
Thr Arg Ala Leu Pro Arg Pro Leu His Pro Thr	Pro Val Val Asp Trp	620
610	615	620
Asp Ala Arg Pro Leu Pro Pro Pro Ala Tyr Asp	Asp Val Ala Gln	640
625	630	635
Asp Glu Asp Asp Phe Glu Ile Cys Ser Ile Asn Ser Thr	Leu Val Gly	655
645	650	655
Ala Gly Val Pro Ala Gly Pro Ser Gln Gly Gln Thr Asn Tyr	Ala Phe	670
660	665	670
Val Pro Glu Gln Ala Arg Pro Pro Pro Pro Leu Glu Asp	Asn Leu Phe	685
675	680	685
Leu Pro Pro Gln Gly Gly Gly Lys Pro Pro Ser Ser	Ala Gln Thr Ala	700
690	695	700
Glu Ile Phe Gln Ala Leu Gln Gln Glu Cys Met Arg Gln	Leu Gln Ala	720
705	710	715
Pro Gly Ser Pro Ala Pro Ser Pro Ser Pro Gly Gly Asp	Asp Lys Pro	735
725	730	735
Gln Val Pro Pro Arg Val Pro Ile Pro Pro Arg Pro Thr	Arg Pro His	750
740	745	750
Val Gln Leu Ser Pro Ala Pro Pro Gly Glu Glu Glu Thr Ser	Gln Trp	765
755	760	765
Pro Gly Pro Ala Ser Pro Pro Arg Val Pro Pro Arg Glu	Pro Leu Ser	780
770	775	780
Pro Gln Gly Ser Arg Thr Pro Ser Pro Leu Val Pro Pro Gly	Ser Ser	800
785	790	795
Pro Leu Pro Pro Arg Leu Ser Ser Ser Pro Gly Lys Thr Met	Pro Thr	815
805	810	815
Thr Gln Ser Phe Ala Ser Asp Pro Lys Tyr Ala Thr Pro Gln	Val Ile	830
820	825	830
Gln Ala Pro Gly Ala Gly Gly Pro Cys Ile Leu Pro Ile Val	Arg Asp	845
835	840	845
Gly Lys Lys Val Ser Ser Thr His Tyr Tyr Leu Leu Pro Glu	Arg Pro	860
850	855	860
Ser Tyr Leu Glu Arg Tyr Gln Arg Phe Leu Arg Glu Ala Gln	Ser Pro	880
865	870	875
Glu Glu Pro Thr Pro Leu Pro Val Pro Leu Leu Pro Pro Pro	Ser	895
885	890	895
Thr Pro Ala Pro Ala Ala Pro Thr Ala Thr Val Arg Pro Met	Pro Gln	910
900	905	910
Ala Ala Leu Asp Pro Lys Ala Asn Phe Ser Thr Asn Asn Ser	Asn Pro	925
915	920	925
Gly Ala Arg Pro Pro Pro Pro Arg Ala Thr Ala Arg Leu Pro	Gln Arg	940
930	935	940
Gly Cys Pro Gly Asp Gly Pro Glu Ala Gly Arg Pro Ala Asp	Lys Ile	960
945	950	955
Gln Met Ala Met Val His Gly Val Thr Thr Glu Glu Cys Gln	Ala Ala	975
965	970	975
Leu Gln Cys His Gly Trp Ser Val Gln Arg Ala Ala Gln Tyr	Leu Lys	990
980	985	990
Val Glu Gln Leu Phe Gly Leu Gly Leu Arg Pro Arg Gly Glu Cys	His	1005
995	1000	1005
Lys Val Leu Glu Met Phe Asp Trp Asn Leu Glu Gln Ala Gly Cys		1020
1010	1015	1020
His Leu Leu Gly Ser Trp Gly Pro Ala His His Lys Arg		1035
1025	1030	1035

<210> 204
 <211> 364
 <212> PRT
 <213> Homo sapiens
 <400> 204

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Met Ala Ala Ile Ser Thr Ser Ile Pro Val Ile Ser Gln Pro Gln Phe
1      5      10      15
Thr Ala Met Asn Glu Pro Gln Cys Phe Tyr Asn Glu Ser Ile Ala Phe
      20      25      30
Phe Tyr Asn Arg Ser Gly Lys His Leu Ala Thr Glu Trp Asn Thr Val
      35      40      45
Ser Lys Leu Val Met Gly Leu Gly Ile Thr Val Cys Ile Phe Ile Met
      50      55      60
Leu Ala Asn Leu Leu Val Met Val Ala Ile Tyr Val Asn Arg Arg Phe
      65      70      75      80
His Phe Pro Ile Tyr Leu Met Ala Asn Leu Ala Ala Ala Asp Phe
      85      90      95
Phe Ala Gly Leu Ala Tyr Phe Tyr Leu Met Phe Asn Thr Gly Pro Asn
      100      105      110
Thr Arg Arg Leu Thr Val Ser Thr Trp Leu Leu Arg Gln Gly Leu Ile
      115      120      125
Asp Thr Ser Leu Thr Ala Ser Val Ala Asn Leu Leu Ala Ile Ala Ile
      130      135      140
Glu Arg His Ile Thr Val Phe Arg Met Gln Leu His Thr Arg Met Ser
      145      150      155      160
Asn Arg Arg Val Val Val Val Ile Val Val Ile Trp Thr Met Ala Ile
      165      170      175
Val Met Gly Ala Ile Pro Ser Val Gly Trp Asn Cys Ile Cys Asp Ile
      180      185      190
Glu Asn Cys Ser Asn Met Ala Pro Leu Tyr Ser Asp Ser Tyr Leu Val
      195      200      205
Phe Trp Ala Ile Phe Asn Leu Val Thr Phe Val Val Met Val Val Leu
      210      215      220
Tyr Ala His Ile Phe Gly Tyr Val Arg Gln Arg Thr Met Arg Met Ser
      225      230      235      240
Arg His Ser Ser Gly Pro Arg Arg Asn Arg Asp Thr Met Met Ser Leu
      245      250      255
Leu Lys Thr Val Val Ile Val Leu Gly Ala Phe Ile Ile Cys Trp Thr
      260      265      270
Pro Gly Leu Val Leu Leu Leu Leu Asp Val Cys Cys Pro Gln Cys Asp
      275      280      285
Val Leu Ala Tyr Glu Lys Phe Phe Leu Leu Leu Ala Glu Phe Asn Ser
      290      295      300
Ala Met Asn Pro Ile Ile Tyr Ser Tyr Arg Asp Lys Glu Met Ser Ala
      305      310      315      320
Thr Phe Arg Gln Ile Leu Cys Cys Gln Arg Ser Glu Asn Pro Thr Gly
      325      330      335
Pro Thr Glu Gly Ser Asp Arg Ser Ala Ser Ser Leu Asn His Thr Ile
      340      345      350
Leu Ala Gly Val His Ser Asn Asp His Ser Val Val
      355      360

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<210> 205

<211> 164

<212> PRT

<213> Homo sapiens

<400> 205

```

Met Ala Ser Pro His Gln Glu Pro Lys Pro Gly Asp Leu Ile Glu Ile
1      5      10      15
Phe Arg Leu Gly Tyr Glu His Trp Ala Leu Tyr Ile Gly Asp Gly Tyr
      20      25      30
Val Ile His Leu Ala Pro Pro Ser Glu Tyr Pro Gly Ala Gly Ser Ser
      35      40      45
Ser Val Phe Ser Val Leu Ser Asn Ser Ala Glu Val Lys Arg Gly Arg
      50      55      60
Leu Glu Asp Val Val Gly Gly Cys Cys Tyr Arg Val Asn Asn Ser Leu
      65      70      75      80
Asp His Glu Tyr Gln Pro Arg Pro Val Glu Val Ile Ile Ser Ser Ala
      85      90      95
Lys Glu Met Val Gly Gln Lys Met Lys Tyr Ser Ile Val Ser Arg Asn
      100      105      110
Cys Glu His Phe Val Ala Gln Leu Arg Tyr Gly Lys Ser Arg Cys Lys
      115      120      125
Gln Val Glu Lys Ala Lys Val Glu Val Gly Val Ala Thr Ala Leu Gly

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130
 Ile Leu Val Val Ala Gly Cys Ser Phe Ala Ile Arg Arg Tyr Gln Lys
 145 150 155 160
 Lys Ala Thr Ala

<210> 206
 <211> 323
 <212> PRT
 <213> Homo sapiens
 <400> 206

Met Tyr His Asn Ser Ser Gln Lys Arg His Trp Thr Phe Ser Ser Glu
 1 5 10 15
 Glu Gln Leu Ala Arg Leu Arg Ala Asp Ala Asn Arg Lys Phe Arg Cys
 20 25 30
 Lys Ala Val Ala Asn Gly Lys Val Leu Pro Asn Asp Pro Val Phe Leu
 35 40 45
 Glu Pro His Glu Glu Met Thr Leu Cys Lys Tyr Tyr Glu Lys Arg Leu
 50 55 60
 Leu Glu Phe Cys Ser Val Phe Lys Pro Ala Met Pro Arg Ser Val Val
 65 70 75 80
 Gly Thr Ala Cys Met Tyr Phe Lys Arg Phe Tyr Leu Asn Asn Ser Val
 85 90 95
 Met Glu Tyr His Pro Arg Ile Ile Met Leu Thr Cys Ala Phe Leu Ala
 100 105 110
 Cys Lys Val Asp Glu Phe Asn Val Ser Ser Pro Gln Phe Val Gly Asn
 115 120 125
 Leu Arg Glu Ser Pro Leu Gly Gln Glu Lys Ala Leu Glu Gln Ile Leu
 130 135 140
 Glu Tyr Glu Leu Leu Ile Gln Gln Leu Asn Phe His Leu Ile Val
 145 150 155 160
 His Asn Pro Tyr Arg Pro Phe Glu Gly Phe Leu Ile Asp Leu Lys Thr
 165 170 175
 Arg Tyr Pro Ile Leu Glu Asn Pro Glu Ile Leu Arg Lys Thr Ala Asp
 180 185 190
 Asp Phe Leu Asn Arg Ile Ala Leu Thr Asp Ala Tyr Leu Leu Tyr Thr
 195 200 205
 Pro Ser Gln Ile Ala Leu Thr Ala Ile Leu Ser Ser Ala Ser Arg Ala
 210 215 220
 Gly Ile Thr Met Glu Ser Tyr Leu Ser Glu Ser Leu Met Leu Lys Glu
 225 230 235 240
 Asn Arg Thr Cys Leu Ser Gln Leu Leu Asp Ile Met Lys Ser Met Arg
 245 250 255
 Asn Leu Val Lys Lys Tyr Glu Pro Pro Arg Ser Glu Glu Val Ala Val
 260 265 270
 Leu Lys Gln Lys Leu Glu Arg Cys His Ser Ala Glu Leu Ala Leu Asn
 275 280 285
 Val Ile Thr Lys Lys Arg Lys Gly Tyr Glu Asp Asp Tyr Val Ser
 290 295 300
 Lys Lys Ser Lys His Glu Glu Glu Glu Trp Thr Asp Asp Asp Leu Val
 305 310 315 320
 Glu Ser Leu

<210> 207
 <211> 710
 <212> PRT
 <213> Homo sapiens
 <400> 207

Met Leu Ser Phe Gln Tyr Pro Asp Val Tyr Arg Asp Glu Thr Ala Val
 1 5 10 15
 Gln Asp Tyr His Gly His Lys Ile Cys Asp Pro Tyr Ala Trp Leu Glu
 20 25 30
 Asp Pro Asp Ser Glu Gln Thr Lys Ala Phe Val Glu Ala Gln Asn Lys
 35 40 45
 Ile Thr Val Pro Phe Leu Glu Gln Cys Pro Ile Arg Gly Leu Tyr Lys
 50 55 60
 Glu Arg Met Thr Glu Leu Tyr Asp Tyr Pro Lys Tyr Ser Cys His Phe
 65 70 75 80

Lys Lys Gly Lys Arg Tyr Phe Tyr Phe Tyr Asn Thr Gly Leu Gln Asn
 85 90 95
 Gln Arg Val Leu Tyr Val Gln Asp Ser Leu Glu Gly Glu Ala Arg Val
 100 105 110
 Phe Leu Asp Pro Asn Ile Leu Ser Asp Asp Gly Thr Val Ala Leu Arg
 115 120 125
 Gly Tyr Ala Phe Ser Glu Asp Gly Glu Tyr Phe Ala Tyr Gly Leu Ser
 130 135 140
 Ala Ser Gly Ser Asp Trp Val Thr Ile Lys Phe Met Lys Val Asp Gly
 145 150 155 160
 Ala Lys Glu Leu Pro Asp Val Leu Glu Arg Val Lys Phe Ser Cys Met
 165 170 175
 Ala Trp Thr His Asp Gly Lys Gly Met Phe Tyr Asn Ser Tyr Pro Gln
 180 185 190
 Gln Asp Gly Lys Ser Asp Gly Thr Glu Thr Ser Thr Asn Leu His Gln
 195 200 205
 Lys Leu Tyr Tyr His Val Leu Gly Thr Asp Gln Ser Glu Asp Ile Leu
 210 215 220
 Cys Ala Glu Phe Pro Asp Glu Pro Lys Trp Met Gly Gly Ala Glu Leu
 225 230 235 240
 Ser Asp Asp Gly Arg Tyr Val Leu Leu Ser Ile Arg Glu Gly Cys Asp
 245 250 255
 Pro Val Asn Arg Leu Trp Tyr Cys Asp Leu Gln Gln Glu Ser Ser Gly
 260 265 270
 Ile Ala Gly Ile Leu Lys Trp Val Lys Leu Ile Asp Asn Phe Glu Gly
 275 280 285
 Glu Tyr Asp Tyr Val Thr Asn Glu Gly Ala Val Phe Thr Phe Lys Thr
 290 295 300
 Asn Arg Gln Ser Pro Asn Tyr Arg Val Ile Asn Ile Asp Phe Arg Asp
 305 310 315 320
 Pro Glu Glu Ser Lys Trp Lys Val Leu Val Pro Glu His Glu Lys Asp
 325 330 335
 Val Leu Glu Trp Ile Ala Cys Val Arg Ser Asn Phe Leu Val Leu Cys
 340 345 350
 Tyr Leu His Asp Val Lys Asn Ile Leu Gln Leu His Asp Leu Thr Thr
 355 360 365
 Gly Ala Leu Leu Lys Thr Phe Pro Leu Asp Val Gly Ser Ile Val Gly
 370 375 380
 Tyr Ser Gly Gln Lys Lys Asp Thr Glu Ile Phe Tyr Gln Phe Thr Ser
 385 390 395 400
 Phe Leu Ser Pro Gly Ile Ile Tyr His Cys Asp Leu Thr Lys Glu Glu
 405 410 415
 Leu Glu Pro Arg Val Phe Arg Glu Val Thr Val Lys Gly Ile Asp Ala
 420 425 430
 Ser Asp Tyr Gln Thr Val Gln Ile Phe Tyr Pro Ser Lys Asp Gly Thr
 435 440 445
 Lys Ile Pro Met Phe Ile Val His Lys Lys Ser Ile Lys Leu Asp Gly
 450 455 460
 Ser His Pro Ala Phe Leu Tyr Gly Tyr Gly Gly Phe Asn Ile Ser Ile
 465 470 475 480
 Thr Pro Asn Tyr Ser Val Ser Arg Leu Ile Phe Val Arg His Met Gly
 485 490 495
 Gly Ile Leu Ala Val Ala Asn Ile Arg Gly Gly Gly Glu Tyr Gly Glu
 500 505 510
 Thr Trp His Lys Gly Gly Ile Leu Ala Asn Lys Gln Asn Cys Phe Asp
 515 520 525
 Asp Phe Gln Cys Ala Ala Glu Tyr Leu Ile Lys Glu Gly Tyr Thr Ser
 530 535 540
 Pro Lys Arg Leu Thr Ile Asn Gly Gly Ser Asn Gly Gly Leu Leu Val
 545 550 555 560
 Ala Ala Cys Ala Asn Gln Arg Pro Asp Leu Phe Gly Cys Val Ile Ala
 565 570 575
 Gln Val Gly Val Met Asp Met Leu Lys Phe His Lys Tyr Thr Ile Gly
 580 585 590
 His Ala Trp Thr Thr Asp Tyr Gly Cys Ser Asp Ser Lys Gln His Phe
 595 600 605
 Glu Trp Leu Val Lys Tyr Ser Pro Leu His Asn Val Lys Leu Pro Glu
 610 615 620
 Ala Asp Asp Ile Gln Tyr Pro Ser Met Leu Leu Leu Thr Ala Asp His

625	630	635	640
Asp Asp Arg Val Val	Pro Leu His Ser Leu	Lys Phe Ile Ala Thr	Leu
	645	650	655
Gln Tyr Ile Val Gly	Arg Ser Arg Lys Gln	Ser Asn Pro Leu	Leu Ile
	660	665	670
His Val Asp Thr Lys	Ala Gly His Gly	Ala Gly Lys Pro	Thr Ala Lys
	675	680	685
Val Ile Glu Glu Val	Ser Asp Met Phe	Ala Phe Ile Ala	Arg Cys Leu
	690	695	700
Asn Val Asp Trp Ile	Pro		
705	710		

<210> 208

<211> 1806

<212> PRT

<213> Homo sapiens

<400> 208

Met Glu Pro Trp Ser	Ser Arg Trp Lys	Thr Lys Arg Trp	Leu Trp Asp
1	5	10	15
Phe Thr Val Thr	Leu Ala Leu Thr	Phe Leu Phe Gln	Ala Arg Glu
	20	25	30
Val Arg Gly Ala	Ala Pro Val Asp	Val Leu Lys Ala	Leu Asp Phe His
	35	40	45
Asn Ser Pro Glu Gly	Ile Ser Lys Thr	Thr Gly Phe Cys	Thr Asn Arg
	50	55	60
Lys Asn Ser Lys Gly	Ser Asp Thr Ala	Tyr Arg Val Ser	Lys Gln Ala
	65	70	75
Gln Leu Ser Ala	Pro Thr Lys Gln	Leu Phe Pro Gly	Gly Thr Phe Pro
	85	90	95
Glu Asp Phe Ser	Ile Leu Phe Thr	Val Lys Pro Lys	Lys Gly Ile Gln
	100	105	110
Ser Phe Leu Leu	Ser Ile Tyr Asn	Glu His Gly Ile	Gln Gln Ile Gly
	115	120	125
Val Glu Val Gly	Arg Ser Pro Val	Phe Leu Phe Glu	Asp His Thr Gly
	130	135	140
Lys Pro Ala Pro	Glu Asp Tyr Pro	Leu Phe Arg Thr	Val Asn Ile Ala
	145	150	155
Asp Gly Lys Trp	His Arg Val Ala	Ile Ser Val Glu	Lys Lys Thr Val
	165	170	175
Thr Met Ile Val	Asp Cys Lys Lys	Lys Thr Thr Lys	Pro Leu Asp Arg
	180	185	190
Ser Glu Arg Ala	Ile Val Asp Thr	Asn Gly Ile Thr	Val Phe Gly Thr
	195	200	205
Arg Ile Leu Asp	Glu Glu Val Phe	Glu Gly Asp Ile	Gln Gln Phe Leu
	210	215	220
Ile Thr Gly Asp	Pro Lys Ala Ala	Tyr Asp Tyr Cys	Glu His Tyr Ser
	225	230	235
Pro Asp Cys Asp	Ser Ser Ala Pro	Lys Ala Ala Gln	Ala Gln Glu Pro
	245	250	255
Gln Ile Asp Glu	Tyr Ala Pro Glu	Asp Ile Ile Glu	Tyr Asp Tyr Glu
	260	265	270
Tyr Gly Glu Ala	Glu Tyr Lys Glu	Ala Glu Ser Val	Thr Glu Gly Pro
	275	280	285
Thr Val Thr Glu	Glu Thr Ile Ala	Gln Thr Glu Ala	Asn Ile Val Asp
	290	295	300
Asp Phe Gln Glu	Tyr Asn Tyr Gly	Thr Met Glu Ser	Tyr Gln Thr Glu
	305	310	315
Ala Pro Arg His	Val Ser Gly Thr	Asn Glu Pro Asn	Pro Val Glu Glu
	325	330	335
Ile Phe Thr Glu	Tyr Leu Thr Gly	Glu Asp Tyr Asp	Ser Gln Arg
	340	345	350
Lys Asn Ser Glu	Asp Thr Leu Tyr	Glu Asn Lys Glu	Ile Asp Gly Arg
	355	360	365
Asp Ser Asp Leu	Leu Val Asp Gly	Asp Leu Gly Glu	Tyr Asp Phe Tyr
	370	375	380
Glu Tyr Lys Glu	Tyr Glu Asp Lys	Pro Thr Ser Pro	Pro Asn Glu Glu
	385	390	395
Phe Gly Pro Gly	Val Pro Ala Glu	Thr Asp Ile Thr	Glu Thr Ser Ile
	405	410	415

Asn Gly His Gly Ala Tyr Gly Glu Lys Gly Gln Lys Gly Glu Pro Ala
 420 425 430
 Val Val Glu Pro Gly Met Leu Val Glu Gly Pro Pro Gly Pro Ala Gly
 435 440 445
 Pro Ala Gly Ile Met Gly Pro Pro Gly Leu Gln Gly Pro Thr Gly Pro
 450 455 460
 Pro Gly Asp Pro Gly Asp Arg Gly Pro Pro Gly Arg Pro Gly Leu Pro
 465 470 475 480
 Gly Ala Asp Gly Leu Pro Gly Pro Pro Gly Thr Met Leu Met Leu Pro
 485 490 495
 Phe Arg Tyr Gly Gly Asp Gly Ser Lys Gly Pro Thr Ile Ser Ala Gln
 500 505 510
 Glu Ala Gln Ala Gln Ala Ile Leu Gln Gln Ala Arg Ile Ala Leu Arg
 515 520 525
 Gly Pro Pro Gly Pro Met Gly Leu Thr Gly Arg Pro Gly Pro Val Gly
 530 535 540
 Gly Pro Gly Ser Ser Gly Ala Lys Gly Glu Ser Gly Asp Pro Gly Pro
 545 550 555 560
 Gln Gly Pro Arg Gly Val Gln Gly Pro Pro Gly Pro Thr Gly Lys Pro
 565 570 575
 Gly Lys Arg Gly Arg Pro Gly Ala Asp Gly Gly Arg Gly Met Pro Gly
 580 585 590
 Glu Pro Gly Ala Lys Gly Asp Arg Gly Phe Asp Gly Leu Pro Gly Leu
 595 600 605
 Pro Gly Asp Lys Gly His Arg Gly Glu Arg Gly Pro Gln Gly Pro Pro
 610 615 620
 Gly Pro Pro Gly Asp Asp Gly Met Arg Gly Glu Asp Gly Glu Ile Gly
 625 630 635 640
 Pro Arg Gly Leu Pro Gly Glu Ala Gly Pro Arg Gly Leu Leu Gly Pro
 645 650 655
 Arg Gly Thr Pro Gly Ala Pro Gly Gln Pro Gly Met Ala Gly Val Asp
 660 665 670
 Gly Pro Pro Gly Pro Lys Gly Asn Met Gly Pro Gln Gly Glu Pro Gly
 675 680 685
 Pro Pro Gly Gln Gln Gly Asn Pro Gly Pro Gln Gly Leu Pro Gly Pro
 690 695 700
 Gln Gly Pro Ile Gly Pro Pro Gly Glu Lys Gly Pro Gln Gly Lys Pro
 705 710 715 720
 Gly Leu Ala Gly Leu Pro Gly Ala Asp Gly Pro Pro Gly His Pro Gly
 725 730 735
 Lys Glu Gly Gln Ser Gly Glu Lys Gly Ala Leu Gly Pro Pro Gly Pro
 740 745 750
 Gln Gly Pro Ile Gly Tyr Pro Gly Pro Arg Gly Val Lys Gly Ala Asp
 755 760 765
 Gly Val Arg Gly Leu Lys Gly Ser Lys Gly Glu Lys Gly Glu Asp Gly
 770 775 780
 Phe Pro Gly Phe Lys Gly Asp Met Gly Leu Lys Gly Asp Arg Gly Glu
 785 790 795 800
 Val Gly Gln Ile Gly Pro Arg Gly Glu Asp Gly Pro Glu Gly Pro Lys
 805 810 815
 Gly Arg Ala Gly Pro Thr Gly Asp Pro Gly Pro Ser Gly Gln Ala Gly
 820 825 830
 Glu Lys Gly Lys Leu Gly Val Pro Gly Leu Pro Gly Tyr Pro Gly Arg
 835 840 845
 Gln Gly Pro Lys Gly Ser Thr Gly Phe Pro Gly Phe Pro Gly Ala Asn
 850 855 860
 Gly Glu Lys Gly Ala Arg Gly Val Ala Gly Lys Pro Gly Pro Arg Gly
 865 870 875 880
 Gln Arg Gly Pro Thr Gly Pro Arg Gly Ser Arg Gly Ala Arg Gly Pro
 885 890 895
 Thr Gly Lys Pro Gly Pro Lys Gly Thr Ser Gly Gly Asp Gly Pro Pro
 900 905 910
 Gly Pro Pro Gly Glu Arg Gly Pro Gln Gly Pro Gln Gly Pro Val Gly
 915 920 925
 Phe Pro Gly Pro Lys Gly Pro Pro Gly Pro Pro Gly Arg Met Gly Cys
 930 935 940
 Pro Gly His Pro Gly Gln Arg Gly Glu Thr Gly Phe Gln Gly Lys Thr
 945 950 955 960
 Gly Pro Pro Gly Pro Gly Gly Val Val Gly Pro Gln Gly Pro Thr Gly

965						970					975				
Glu	Thr	Gly	Pro	Ile	Gly	Glu	Arg	Gly	His	Pro	Gly	Pro	Pro	Gly	Pro
980						985					990				
Pro	Gly	Glu	Gln	Gly	Leu	Pro	Gly	Ala	Ala	Gly	Lys	Glu	Gly	Ala	Lys
995						1000					1005				
Gly	Asp	Pro	Gly	Pro	Gln	Gly	Ile	Ser	Gly	Lys	Asp	Gly	Pro	Ala	
	1010					1015					1020				
Gly	Leu	Arg	Gly	Phe	Pro	Gly	Glu	Arg	Gly	Leu	Pro	Gly	Ala	Gln	
	1025					1030					1035				
Gly	Ala	Pro	Gly	Leu	Lys	Gly	Gly	Glu	Gly	Pro	Gln	Gly	Pro	Pro	
	1040					1045					1050				
Gly	Pro	Val	Gly	Ser	Pro	Gly	Glu	Arg	Gly	Ser	Ala	Gly	Thr	Ala	
	1055					1060					1065				
Gly	Pro	Ile	Gly	Leu	Pro	Gly	Arg	Pro	Gly	Pro	Gln	Gly	Pro	Pro	
	1070					1075					1080				
Gly	Pro	Ala	Gly	Glu	Lys	Gly	Ala	Pro	Gly	Glu	Lys	Gly	Pro	Gln	
	1085					1090					1095				
Gly	Pro	Ala	Gly	Arg	Asp	Gly	Val	Gln	Gly	Pro	Val	Gly	Leu	Pro	
	1100					1105					1110				
Gly	Pro	Ala	Gly	Pro	Ala	Gly	Ser	Pro	Gly	Glu	Asp	Gly	Asp	Lys	
	1115					1120					1125				
Gly	Glu	Ile	Gly	Glu	Pro	Gly	Gln	Lys	Gly	Ser	Lys	Gly	Asp	Lys	
	1130					1135					1140				
Gly	Glu	Asn	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Gln	Gly	Pro	Val	
	1145					1150					1155				
Gly	Ala	Pro	Gly	Ile	Ala	Gly	Gly	Asp	Gly	Glu	Pro	Gly	Pro	Arg	
	1160					1165					1170				
Gly	Gln	Gln	Gly	Met	Phe	Gly	Gln	Lys	Gly	Asp	Glu	Gly	Ala	Arg	
	1175					1180					1185				
Gly	Phe	Pro	Gly	Pro	Pro	Gly	Pro	Ile	Gly	Leu	Gln	Gly	Leu	Pro	
	1190					1195					1200				
Gly	Pro	Pro	Gly	Glu	Lys	Gly	Glu	Asn	Gly	Asp	Val	Gly	Pro	Trp	
	1205					1210					1215				
Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Arg	Gly	Pro	Gln	Gly	Pro	Asn	
	1220					1225					1230				
Gly	Ala	Asp	Gly	Pro	Gln	Gly	Pro	Pro	Gly	Ser	Val	Gly	Ser	Val	
	1235					1240					1245				
Gly	Gly	Val	Gly	Glu	Lys	Gly	Glu	Pro	Gly	Glu	Ala	Gly	Asn	Pro	
	1250					1255					1260				
Gly	Pro	Pro	Gly	Glu	Ala	Gly	Val	Gly	Gly	Pro	Lys	Gly	Glu	Arg	
	1265					1270					1275				
Gly	Glu	Lys	Gly	Glu	Ala	Gly	Pro	Pro	Gly	Ala	Ala	Gly	Pro	Pro	
	1280					1285					1290				
Gly	Ala	Lys	Gly	Pro	Pro	Gly	Asp	Asp	Gly	Pro	Lys	Gly	Asn	Pro	
	1295					1300					1305				
Gly	Pro	Val	Gly	Phe	Pro	Gly	Asp	Pro	Gly	Pro	Pro	Gly	Glu	Leu	
	131														

Gly Ile Pro Gly Pro Ala Gly Pro Leu Gly Pro Pro Gly Pro Pro
 1490 1495 1500
 Gly Leu Pro Gly Pro Gln Gly Pro Lys Gly Asn Lys Gly Ser Thr
 1505 1510 1515
 Gly Pro Ala Gly Gln Lys Gly Asp Ser Gly Leu Pro Gly Pro Pro
 1520 1525 1530
 Gly Pro Pro Gly Pro Pro Gly Glu Val Ile Gln Pro Leu Pro Ile
 1535 1540 1545
 Leu Ser Ser Lys Lys Thr Arg Arg His Thr Glu Gly Met Gln Ala
 1550 1555 1560
 Asp Ala Asp Asp Asn Ile Leu Asp Tyr Ser Asp Gly Met Glu Glu
 1565 1570 1575
 Ile Phe Gly Ser Leu Asn Ser Leu Lys Gln Asp Ile Glu His Met
 1580 1585 1590
 Lys Phe Pro Met Gly Thr Gln Thr Asn Pro Ala Arg Thr Cys Lys
 1595 1600 1605
 Asp Leu Gln Leu Ser His Pro Asp Phe Pro Asp Gly Glu Tyr Trp
 1610 1615 1620
 Ile Asp Pro Asn Gln Gly Cys Ser Gly Asp Ser Phe Lys Val Tyr
 1625 1630 1635
 Cys Asn Phe Thr Ser Gly Gly Glu Thr Cys Ile Tyr Pro Asp Lys
 1640 1645 1650
 Lys Ser Glu Gly Val Arg Ile Ser Ser Trp Pro Lys Glu Lys Pro
 1655 1660 1665
 Gly Ser Trp Phe Ser Glu Phe Lys Arg Gly Lys Leu Leu Ser Tyr
 1670 1675 1680
 Leu Asp Val Glu Gly Asn Ser Ile Asn Met Val Gln Met Thr Phe
 1685 1690 1695
 Leu Lys Leu Leu Thr Ala Ser Ala Arg Gln Asn Phe Thr Tyr His
 1700 1705 1710
 Cys His Gln Ser Ala Ala Trp Tyr Asp Val Ser Ser Gly Ser Tyr
 1715 1720 1725
 Asp Lys Ala Leu Arg Phe Leu Gly Ser Asn Asp Glu Glu Met Ser
 1730 1735 1740
 Tyr Asp Asn Asn Pro Phe Ile Lys Thr Leu Tyr Asp Gly Cys Thr
 1745 1750 1755
 Ser Arg Lys Gly Tyr Glu Lys Thr Val Ile Glu Ile Asn Thr Pro
 1760 1765 1770
 Lys Ile Asp Gln Val Pro Ile Val Asp Val Met Ile Asn Asp Phe
 1775 1780 1785
 Gly Asp Gln Asn Gln Lys Phe Gly Phe Glu Val Gly Pro Val Cys
 1790 1795 1800
 Phe Leu Gly
 1805

<210> 209

<211> 669

<212> PRT

<213> Homo sapiens

<400> 209

Met Thr Ala Ala Ala Gly Ser Ala Gly Arg Ala Ala Val Pro Leu Leu
 1 5 10 15
 Leu Cys Ala Leu Leu Ala Pro Gly Gly Ala Tyr Val Leu Asp Asp Ser
 20 25 30
 Asp Gly Leu Gly Arg Glu Phe Asp Gly Ile Gly Ala Val Ser Gly Gly
 35 40 45
 Gly Ala Thr Ser Arg Leu Leu Val Asn Tyr Pro Glu Pro Tyr Arg Ser
 50 55 60
 Gln Ile Leu Asp Tyr Leu Phe Lys Pro Asn Phe Gly Ala Ser Leu His
 65 70 75 80
 Ile Leu Lys Val Glu Ile Gly Gly Asp Gly Gln Thr Thr Asp Gly Thr
 85 90 95
 Glu Pro Ser His Met His Tyr Ala Leu Asp Glu Asn Tyr Phe Arg Gly
 100 105 110
 Tyr Glu Trp Trp Leu Met Lys Glu Ala Lys Lys Arg Asn Pro Asn Ile
 115 120 125
 Thr Leu Ile Gly Leu Pro Trp Ser Phe Pro Gly Trp Leu Gly Lys Gly
 130 135 140
 Phe Asp Trp Pro Tyr Val Asn Leu Gln Leu Thr Ala Tyr Tyr Val Val

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145          150          155          160
Thr Trp Ile Val Gly Ala Lys Arg Tyr His Asp Leu Asp Ile Asp Tyr
165          170          175
Ile Gly Ile Trp Asn Glu Arg Ser Tyr Asn Ala Asn Tyr Ile Lys Ile
180          185          190
Leu Arg Lys Met Leu Asn Tyr Gln Gly Leu Gln Arg Val Lys Ile Ile
195          200          205
Ala Ser Asp Asn Leu Trp Glu Ser Ile Ser Ala Ser Met Leu Leu Asp
210          215          220
Ala Glu Leu Phe Lys Val Val Asp Val Ile Gly Ala His Tyr Pro Gly
225          230          235
Thr His Ser Ala Lys Asp Ala Lys Leu Thr Gly Lys Lys Leu Trp Ser
245          250          255
Ser Glu Asp Phe Ser Thr Leu Asn Ser Asp Met Gly Ala Gly Cys Trp
260          265          270
Gly Arg Ile Leu Asn Gln Asn Tyr Ile Asn Gly Tyr Met Thr Ser Thr
275          280          285
Ile Ala Trp Asn Leu Val Ala Ser Tyr Tyr Glu Gln Leu Pro Tyr Gly
290          295          300
Arg Cys Gly Leu Met Thr Ala Gln Glu Pro Trp Ser Gly His Tyr Val
305          310          315
Val Glu Ser Pro Val Trp Val Ser Ala His Thr Thr Gln Phe Thr Gln
325          330          335
Pro Gly Trp Tyr Tyr Leu Lys Thr Val Gly His Leu Glu Lys Gly Gly
340          345          350
Ser Tyr Val Ala Leu Thr Asp Gly Leu Gly Asn Leu Thr Ile Ile Ile
355          360          365
Glu Thr Met Ser His Lys His Ser Lys Cys Ile Arg Pro Phe Leu Pro
370          375          380
Tyr Phe Asn Val Ser Gln Gln Phe Ala Thr Phe Val Leu Lys Gly Ser
385          390          395
Phe Ser Glu Ile Pro Glu Leu Gln Val Trp Tyr Thr Lys Leu Gly Lys
405          410          415
Thr Ser Glu Arg Phe Leu Phe Lys Gln Leu Asp Ser Leu Trp Leu Leu
420          425          430
Asp Ser Asp Gly Ser Phe Thr Leu Ser Leu His Glu Asp Glu Leu Phe
435          440          445
Thr Leu Thr Thr Leu Thr Thr Gly Arg Lys Gly Ser Tyr Pro Leu Pro
450          455          460
Pro Lys Ser Gln Pro Phe Pro Ser Thr Tyr Lys Asp Asp Phe Asn Val
465          470          475
Asp Tyr Pro Phe Phe Ser Glu Ala Pro Asn Phe Ala Asp Gln Thr Gly
485          490          495
Val Phe Glu Tyr Phe Thr Asn Ile Glu Asp Pro Gly Glu His His Phe
500          505          510
Thr Leu Arg Gln Val Leu Asn Gln Arg Pro Ile Thr Trp Ala Ala Asp
515          520          525
Ala Ser Asn Thr Ile Ser Ile Ile Gly Asp Tyr Asn Trp Thr Asn Leu
530          535          540
Thr Ile Lys Cys Asp Val Tyr Ile Glu Thr Pro Asp Thr Gly Gly Val
545          550          555
Phe Ile Ala Gly Arg Val Asn Lys Gly Gly Ile Leu Ile Arg Ser Ala
565          570          575
Arg Gly Ile Phe Phe Trp Ile Phe Ala Asn Gly Ser Tyr Arg Val Thr
580          585          590
Gly Asp Leu Ala Gly Trp Ile Ile Tyr Ala Leu Gly Arg Val Glu Val
595          600          605
Thr Ala Lys Lys Trp Tyr Thr Leu Thr Thr Ile Lys Gly His Phe
610          615          620
Ala Ser Gly Met Leu Asn Asp Lys Ser Leu Trp Thr Asp Ile Pro Val
625          630          635
Asn Phe Pro Lys Asn Gly Trp Ala Ala Ile Gly Thr His Ser Phe Glu
645          650          655
Phe Ala Gln Phe Asp Asn Phe Leu Val Glu Ala Thr Arg
660          665

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<210> 210
<211> 508
<212> PRT

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<213> Homo sapiens

<400> 210

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Met Gln Arg Leu Leu Thr Pro Val Lys Arg Ile Leu Gln Leu Thr Arg
1      5      10      15
Ala Val Gln Glu Thr Ser Leu Thr Pro Ala Arg Leu Leu Pro Val Ala
20      25      30
His Gln Arg Phe Ser Thr Ala Ser Ala Val Pro Leu Ala Lys Thr Asp
35      40      45
Thr Trp Pro Lys Asp Val Gly Ile Leu Ala Leu Glu Val Tyr Phe Pro
50      55      60
Ala Gln Tyr Val Asp Gln Thr Asp Leu Glu Lys Tyr Asn Asn Val Glu
65      70      75
Ala Gly Lys Tyr Thr Val Gly Leu Gly Gln Thr Arg Met Gly Phe Cys
85      90      95
Ser Val Gln Glu Asp Ile Asn Ser Leu Cys Leu Thr Val Val Gln Arg
100     105     110
Leu Met Glu Arg Ile Gln Leu Pro Trp Asp Ser Val Gly Arg Leu Glu
115     120     125
Val Gly Thr Glu Thr Ile Ile Asp Lys Ser Lys Ala Val Lys Thr Val
130     135     140
Leu Met Glu Leu Phe Gln Asp Ser Gly Asn Thr Asp Ile Glu Gly Ile
145     150     155
Asp Thr Thr Asn Ala Cys Tyr Gly Gly Thr Ala Ser Leu Phe Asn Ala
165     170     175
Ala Asn Trp Met Glu Ser Ser Ser Trp Asp Gly Arg Tyr Ala Met Val
180     185     190
Val Cys Gly Asp Ile Ala Val Tyr Pro Ser Gly Asn Ala Arg Pro Thr
195     200     205
Gly Gly Ala Gly Ala Val Ala Met Leu Ile Gly Pro Lys Ala Pro Leu
210     215     220
Ala Leu Glu Arg Gly Leu Arg Gly Thr His Met Glu Asn Val Tyr Asp
225     230     235
Phe Tyr Lys Pro Asn Leu Ala Ser Glu Tyr Pro Ile Val Asp Gly Lys
245     250     255
Leu Ser Ile Gln Cys Tyr Leu Arg Ala Leu Asp Arg Cys Tyr Thr Ser
260     265     270
Tyr Arg Lys Lys Ile Gln Asn Gln Trp Lys Gln Ala Gly Ser Asp Arg
275     280     285
Pro Phe Thr Leu Asp Asp Leu Gln Tyr Met Ile Phe His Thr Pro Phe
290     295     300
Cys Lys Met Val Gln Lys Ser Leu Ala Arg Leu Met Phe Asn Asp Phe
305     310     315
Leu Ser Ala Ser Ser Asp Thr Gln Thr Ser Leu Tyr Lys Gly Leu Glu
325     330     335
Ala Phe Gly Gly Leu Lys Leu Glu Asp Thr Tyr Thr Asn Lys Asp Leu
340     345     350
Asp Lys Ala Leu Leu Lys Ala Ser Gln Asp Met Phe Asp Lys Lys Thr
355     360     365
Lys Ala Ser Leu Tyr Leu Ser Thr His Asn Gly Asn Met Tyr Thr Ser
370     375     380
Ser Leu Tyr Gly Cys Leu Ala Ser Leu Leu Ser His His Ser Ala Gln
385     390     395
Glu Leu Ala Gly Ser Arg Ile Gly Ala Phe Ser Tyr Gly Ser Gly Leu
405     410     415
Ala Ala Ser Phe Phe Ser Phe Arg Val Ser Gln Asp Ala Ala Pro Gly
420     425     430
Ser Pro Leu Asp Lys Leu Val Ser Ser Thr Ser Asp Leu Pro Lys Arg
435     440     445
Leu Ala Ser Arg Lys Cys Val Ser Pro Glu Glu Phe Thr Glu Ile Met
450     455     460
Asn Gln Arg Glu Gln Phe Tyr His Lys Val Asn Phe Ser Pro Pro Gly
465     470     475
Asp Thr Asn Ser Leu Phe Pro Gly Thr Trp Tyr Leu Glu Arg Val Asp
485     490     495
Glu Gln His Arg Arg Lys Tyr Ala Arg Arg Pro Val
500     505

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<210> 211

<211> 548


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<212> PRT
<213> Homo sapiens
<400> 211
Met Asn Ile Glu Val Val Glu Val Leu Thr Leu Asn Gln Glu Val Ala
1      5      10      15
Gly Pro Arg Asn Ala Gln Ile Gln Ala Leu Tyr Ala Glu Asp Gly Ser
20     25     30
Leu Ser Ala Asp Ala Pro Ser Glu Gln Val Gln Gln Gly Lys His
35     40     45
Pro Gly Asp Pro Glu Ala Ala Arg Gln Arg Phe Arg Gln Phe Arg Tyr
50     55     60
Lys Asp Met Thr Gly Pro Arg Glu Ala Leu Asp Gln Leu Arg Glu Leu
65     70     75     80
Cys His Gln Trp Leu Gln Pro Lys Ala Arg Ser Lys Glu Gln Ile Leu
85     90     95
Glu Leu Leu Val Leu Glu Gln Phe Leu Gly Ala Leu Pro Val Lys Leu
100    105    110
Arg Thr Trp Val Glu Ser Gln His Pro Glu Asn Cys Gln Glu Val Val
115    120    125
Ala Leu Val Glu Gly Val Thr Trp Met Ser Glu Glu Glu Val Leu Pro
130    135    140
Ala Gly Gln Pro Ala Glu Gly Thr Thr Cys Cys Leu Glu Val Thr Ala
145    150    155    160
Gln Gln Glu Glu Lys Gln Glu Asp Ala Ala Ile Cys Pro Val Thr Val
165    170    175
Leu Pro Glu Glu Pro Val Thr Phe Gln Asp Val Ala Val Asp Phe Ser
180    185    190
Arg Glu Glu Trp Gly Leu Leu Gly Pro Thr Gln Arg Thr Glu Tyr Arg
195    200    205
Asp Val Met Leu Glu Thr Phe Gly His Leu Val Ser Val Gly Trp Glu
210    215    220
Thr Thr Leu Glu Asn Lys Glu Leu Ala Pro Asn Ser Asp Ile Pro Glu
225    230    235    240
Glu Glu Pro Ala Pro Ser Leu Lys Val Gln Glu Ser Ser Arg Asp Cys
245    250    255
Ala Leu Ser Ser Thr Leu Glu Asp Thr Leu Gln Gly Gly Val Gln Glu
260    265    270
Val Gln Asp Thr Val Leu Lys Gln Met Glu Ser Ala Gln Glu Lys Asp
275    280    285
Leu Pro Gln Lys Lys His Phe Asp Asn Arg Glu Ser Gln Ala Asn Ser
290    295    300
Gly Ala Leu Asp Thr Asn Gln Val Ser Leu Gln Lys Ile Asp Asn Pro
305    310    315    320
Glu Ser Gln Ala Asn Ser Gly Ala Leu Asp Thr Asn Gln Val Leu Leu
325    330    335
His Lys Ile Pro Pro Arg Lys Arg Leu Arg Lys Arg Asp Ser Gln Val
340    345    350
Lys Ser Met Lys His Asn Ser Arg Val Lys Ile His Gln Lys Ser Cys
355    360    365
Glu Arg Gln Lys Ala Lys Glu Gly Asn Gly Cys Arg Lys Thr Phe Ser
370    375    380
Arg Ser Thr Lys Gln Ile Thr Phe Ile Arg Ile His Lys Gly Ser Gln
385    390    395    400
Val Cys Arg Cys Ser Glu Cys Gly Lys Ile Phe Arg Asn Pro Arg Tyr
405    410    415
Phe Ser Val His Lys Lys Ile His Thr Gly Glu Arg Pro Tyr Val Cys
420    425    430
Gln Asp Cys Gly Lys Gly Phe Val Gln Ser Ser Ser Leu Thr Gln His
435    440    445
Gln Arg Val His Ser Gly Glu Arg Pro Phe Glu Cys Gln Glu Cys Gly
450    455    460
Arg Thr Phe Asn Asp Arg Ser Ala Ile Ser Gln His Leu Arg Thr His
465    470    475    480
Thr Gly Ala Lys Pro Tyr Lys Cys Gln Asp Cys Gly Lys Ala Phe Arg
485    490    495
Gln Ser Ser His Leu Ile Arg His Gln Arg Thr His Thr Gly Glu Arg
500    505    510
Pro Tyr Ala Cys Asn Lys Cys Gly Lys Ala Phe Thr Gln Ser Ser His
515    520    525

```

Leu Ile Gly His Gln Arg Thr His Asn Arg Thr Lys Arg Lys Lys Lys
 530 535 540

Gln Pro Thr Ser
 545

<210> 212

<211> 84

<212> PRT

<213> Homo sapiens

<400> 212

Met Ala Thr Met Glu Asn Lys Val Ile Cys Ala Leu Val Leu Val Ser
 1 5 10 15
 Met Leu Ala Leu Gly Thr Leu Ala Glu Ala Gln Thr Glu Thr Cys Thr
 20 25 30
 Val Ala Pro Arg Glu Arg Gln Asn Cys Gly Phe Pro Gly Val Thr Pro
 35 40 45
 Ser Gln Cys Ala Asn Lys Gly Cys Cys Phe Asp Asp Thr Val Arg Gly
 50 55 60
 Val Pro Trp Cys Phe Tyr Pro Asn Thr Ile Asp Val Pro Pro Glu Glu
 65 70 75 80
 Glu Cys Glu Phe

<210> 213

<211> 339

<212> PRT

<213> Homo sapiens

<400> 213

Met Ala Met Gln Met Gln Leu Glu Ala Asn Ala Asp Thr Ser Val Glu
 1 5 10 15
 Glu Glu Ser Phe Gly Pro Gln Pro Ile Ser Arg Leu Glu Gln Cys Gly
 20 25 30
 Ile Asn Ala Asn Asp Val Lys Lys Leu Glu Glu Ala Gly Phe His Thr
 35 40 45
 Val Glu Ala Val Ala Tyr Ala Pro Lys Lys Glu Leu Ile Asn Ile Lys
 50 55 60
 Gly Ile Ser Glu Ala Lys Ala Asp Lys Ile Leu Ala Glu Ala Ala Lys
 65 70 75 80
 Leu Val Pro Met Gly Phe Thr Thr Ala Thr Glu Phe His Gln Arg Arg
 85 90 95
 Ser Glu Ile Ile Gln Ile Thr Thr Gly Ser Lys Glu Leu Asp Lys Leu
 100 105 110
 Leu Gln Gly Gly Ile Glu Thr Gly Ser Ile Thr Glu Met Phe Gly Glu
 115 120 125
 Phe Arg Thr Gly Lys Thr Gln Ile Cys His Thr Leu Ala Val Thr Cys
 130 135 140
 Gln Leu Pro Ile Asp Arg Gly Gly Gly Glu Gly Lys Ala Met Tyr Ile
 145 150 155 160
 Asp Thr Glu Gly Thr Phe Arg Pro Glu Arg Leu Leu Ala Val Ala Glu
 165 170 175
 Arg Tyr Gly Leu Ser Gly Ser Asp Val Leu Asp Asn Val Ala Tyr Ala
 180 185 190
 Arg Ala Phe Asn Thr Asp His Gln Thr Gln Leu Leu Tyr Gln Ala Ser
 195 200 205
 Ala Met Met Val Glu Ser Arg Tyr Ala Leu Leu Ile Val Asp Ser Ala
 210 215 220
 Thr Ala Leu Tyr Arg Thr Asp Tyr Ser Gly Arg Gly Glu Leu Ser Ala
 225 230 235 240
 Arg Gln Met His Leu Ala Arg Phe Leu Arg Met Leu Leu Arg Leu Ala
 245 250 255
 Asp Glu Phe Gly Val Ala Val Val Ile Thr Asn Gln Val Val Ala Gln
 260 265 270
 Val Asp Gly Ala Ala Met Phe Ala Ala Asp Pro Lys Lys Pro Ile Gly
 275 280 285
 Gly Asn Ile Ile Ala His Ala Ser Thr Thr Arg Leu Tyr Leu Arg Lys
 290 295 300
 Gly Arg Gly Glu Thr Arg Ile Cys Lys Ile Tyr Asp Ser Pro Cys Leu
 305 310 315 320
 Pro Glu Ala Glu Ala Met Phe Ala Ile Asn Ala Asp Gly Val Gly Asp

Ala Lys Asp 325 330 335

<210> 214
 <211> 561
 <212> PRT
 <213> Homo sapiens
 <400> 214

Met Cys Gly Ile Trp Ala Leu Phe Gly Ser Asp Asp Cys Leu Ser Val
 1 5 10 15
 Gln Cys Leu Ser Ala Met Lys Ile Ala His Arg Gly Pro Asp Ala Phe
 20 25 30
 Arg Phe Glu Asn Val Asn Gly Tyr Thr Asn Cys Cys Phe Gly Phe His
 35 40 45
 Arg Leu Ala Val Val Asp Pro Leu Phe Gly Met Gln Pro Ile Arg Val
 50 55 60
 Lys Lys Tyr Pro Tyr Leu Trp Leu Cys Tyr Asn Gly Glu Ile Tyr Asn
 65 70 75 80
 His Lys Lys Met Gln Gln His Phe Glu Phe Glu Tyr Gln Thr Lys Val
 85 90 95
 Asp Gly Glu Ile Ile Leu His Leu Tyr Asp Lys Gly Gly Ile Glu Gln
 100 105 110
 Thr Ile Cys Met Leu Asp Gly Val Phe Ala Phe Val Leu Leu Asp Thr
 115 120 125
 Ala Asn Lys Lys Val Phe Leu Gly Arg Asp Thr Tyr Gly Val Arg Pro
 130 135 140
 Leu Phe Lys Ala Met Thr Glu Asp Gly Phe Leu Ala Val Cys Ser Glu
 145 150 155 160
 Ala Lys Gly Leu Val Thr Leu Lys His Ser Ala Thr Pro Phe Leu Lys
 165 170 175
 Val Glu Pro Phe Leu Pro Gly His Tyr Glu Val Leu Asp Leu Lys Pro
 180 185 190
 Asn Gly Lys Val Ala Ser Val Glu Met Val Lys Tyr His His Cys Arg
 195 200 205
 Asp Glu Pro Leu His Ala Leu Tyr Asp Asn Val Glu Lys Leu Phe Pro
 210 215 220
 Gly Phe Glu Ile Glu Thr Val Lys Asn Asn Leu Arg Ile Leu Phe Asn
 225 230 235 240
 Asn Ala Val Lys Lys Arg Leu Met Thr Asp Arg Arg Ile Gly Cys Leu
 245 250 255
 Leu Ser Gly Gly Leu Asp Ser Ser Leu Val Ala Ala Thr Leu Leu Lys
 260 265 270
 Gln Leu Lys Glu Ala Gln Val Gln Tyr Pro Leu Gln Thr Phe Ala Ile
 275 280 285
 Gly Met Glu Asp Ser Pro Asp Leu Leu Ala Ala Arg Lys Val Ala Asp
 290 295 300
 His Ile Gly Ser Glu His Tyr Glu Val Leu Phe Asn Ser Glu Glu Gly
 305 310 315 320
 Ile Gln Ala Leu Asp Glu Val Ile Phe Ser Leu Glu Thr Tyr Asp Ile
 325 330 335
 Thr Thr Val Arg Ala Ser Val Gly Met Tyr Leu Ile Ser Lys Tyr Ile
 340 345 350
 Arg Lys Asn Thr Asp Ser Val Val Ile Phe Ser Gly Glu Gly Ser Asp
 355 360 365
 Glu Leu Thr Gln Gly Tyr Ile Tyr Phe His Lys Ala Pro Ser Pro Glu
 370 375 380
 Lys Ala Glu Glu Glu Ser Glu Arg Leu Leu Arg Glu Leu Tyr Leu Phe
 385 390 395 400
 Asp Val Leu Arg Ala Asp Arg Thr Thr Ala Ala His Gly Leu Glu Leu
 405 410 415
 Arg Val Pro Phe Leu Asp His Arg Phe Ser Ser Tyr Tyr Leu Ser Leu
 420 425 430
 Pro Pro Glu Met Arg Ile Pro Lys Asn Gly Ile Glu Lys His Leu Leu
 435 440 445
 Arg Glu Thr Phe Glu Asp Ser Asn Leu Ile Pro Lys Glu Ile Leu Trp
 450 455 460
 Arg Pro Lys Glu Ala Phe Ser Asp Gly Ile Thr Ser Val Lys Asn Ser
 465 470 475 480

Trp Phe Lys Ile Leu Gln Glu Tyr Val Glu His Gln Val Asp Asp Ala
 485 490 495
 Met Met Ala Asn Ala Ala Gln Lys Phe Pro Phe Asn Thr Pro Lys Thr
 500 505 510
 Lys Glu Gly Tyr Tyr Tyr Arg Gln Val Phe Glu Arg His Tyr Pro Gly
 515 520 525
 Arg Ala Asp Trp Leu Ser His Tyr Trp Met Pro Lys Trp Ile Asn Ala
 530 535 540
 Thr Asp Pro Ser Ala Arg Thr Leu Thr His Tyr Lys Ser Ala Val Lys
 545 550 555 560
 Ala

<210> 215
 <211> 227
 <212> PRT
 <213> Homo sapiens
 <400> 215

Met Ala Trp Lys Ser Gly Gly Ala Ser His Ser Glu Leu Ile His Asn
 1 5 10 15
 Leu Arg Lys Asn Gly Ile Ile Lys Thr Asp Lys Val Phe Glu Val Met
 20 25 30
 Leu Ala Thr Asp Arg Ser His Tyr Ala Lys Cys Asn Pro Tyr Met Asp
 35 40 45
 Ser Pro Gln Ser Ile Gly Phe Gln Ala Thr Ile Ser Ala Pro His Met
 50 55 60
 His Ala Tyr Ala Leu Glu Leu Leu Phe Asp Gln Leu His Glu Gly Ala
 65 70 75 80
 Lys Ala Leu Asp Val Gly Ser Gly Ser Gly Ile Leu Thr Ala Cys Phe
 85 90 95
 Ala Arg Met Val Gly Cys Thr Gly Lys Val Ile Gly Ile Asp His Ile
 100 105 110
 Lys Glu Leu Val Asp Asp Ser Val Asn Asn Val Arg Lys Asp Asp Pro
 115 120 125
 Thr Leu Leu Ser Ser Gly Arg Val Gln Leu Val Val Gly Asp Gly Arg
 130 135 140
 Met Gly Tyr Ala Glu Glu Ala Pro Tyr Asp Ala Ile His Val Gly Ala
 145 150 155 160
 Ala Ala Pro Val Val Pro Gln Ala Leu Ile Asp Gln Leu Lys Pro Gly
 165 170 175
 Gly Arg Leu Ile Leu Pro Val Gly Pro Ala Gly Gly Asn Gln Met Leu
 180 185 190
 Glu Gln Tyr Asp Lys Leu Gln Asp Gly Ser Ile Lys Met Lys Pro Leu
 195 200 205
 Met Gly Val Ile Tyr Val Pro Leu Thr Asp Lys Glu Lys Gln Trp Ser
 210 215 220
 Arg Trp Lys
 225

<210> 216
 <211> 595
 <212> PRT
 <213> Homo sapiens
 <400> 216

Met Thr Met Thr Leu His Thr Lys Ala Ser Gly Met Ala Leu Leu His
 1 5 10 15
 Gln Ile Gln Gly Asn Glu Leu Glu Pro Leu Asn Arg Pro Gln Leu Lys
 20 25 30
 Ile Pro Leu Glu Arg Pro Leu Gly Glu Val Tyr Leu Asp Ser Ser Lys
 35 40 45
 Pro Ala Val Tyr Asn Tyr Pro Glu Gly Ala Ala Tyr Glu Phe Asn Ala
 50 55 60
 Ala Ala Ala Ala Asn Ala Gln Val Tyr Gly Gln Thr Gly Leu Pro Tyr
 65 70 75 80
 Gly Pro Gly Ser Glu Ala Ala Ala Phe Gly Ser Asn Gly Leu Gly Gly
 85 90 95
 Phe Pro Pro Leu Asn Ser Val Ser Pro Ser Pro Leu Met Leu Leu His
 100 105 110
 Pro Pro Pro Gln Leu Ser Pro Phe Leu Gln Pro His Gly Gln Gln Val

115	120	125
Pro Tyr Tyr Leu Glu Asn Glu Pro Ser Gly Tyr Thr Val Arg Glu Ala		
130	135	140
Gly Pro Pro Ala Phe Tyr Arg Pro Asn Ser Asp Asn Arg Arg Gln Gly		
145	150	155
Gly Arg Glu Arg Leu Ala Ser Thr Asn Asp Lys Gly Ser Met Ala Met		
165	170	175
Glu Ser Ala Lys Glu Thr Arg Tyr Cys Ala Val Cys Asn Asp Tyr Ala		
180	185	190
Ser Gly Tyr His Tyr Gly Val Trp Ser Cys Glu Gly Cys Lys Ala Phe		
195	200	205
Phe Lys Arg Ser Ile Gln Gly His Asn Asp Tyr Met Cys Pro Ala Thr		
210	215	220
Asn Gln Cys Thr Ile Asp Lys Asn Arg Arg Lys Ser Cys Gln Ala Cys		
225	230	235
Arg Leu Arg Lys Cys Tyr Glu Val Gly Met Met Lys Gly Gly Ile Arg		
245	250	255
Lys Asp Arg Arg Gly Gly Arg Met Leu Lys His Lys Arg Gln Arg Asp		
260	265	270
Asp Gly Glu Gly Arg Gly Glu Val Gly Ser Ala Gly Asp Met Arg Ala		
275	280	285
Ala Asn Leu Trp Pro Ser Pro Leu Met Ile Lys Arg Ser Lys Lys Asn		
290	295	300
Ser Leu Ala Leu Ser Leu Thr Ala Asp Gln Met Val Ser Ala Leu Leu		
305	310	315
Asp Ala Glu Pro Pro Ile Leu Tyr Ser Glu Tyr Asp Pro Thr Arg Pro		
325	330	335
Phe Ser Glu Ala Ser Met Met Gly Leu Leu Thr Asn Leu Ala Asp Arg		
340	345	350
Glu Leu Val His Met Ile Asn Trp Ala Lys Arg Val Pro Gly Phe Val		
355	360	365
Asp Leu Thr Leu His Asp Gln Val His Leu Leu Glu Cys Ala Trp Leu		
370	375	380
Glu Ile Leu Met Ile Gly Leu Val Trp Arg Ser Met Glu His Pro Val		
385	390	395
Lys Leu Leu Phe Ala Pro Asn Leu Leu Leu Asp Arg Asn Gln Gly Lys		
405	410	415
Cys Val Glu Gly Met Val Glu Ile Phe Asp Met Leu Leu Ala Thr Ser		
420	425	430
Ser Arg Phe Arg Met Met Asn Leu Gln Gly Glu Glu Phe Val Cys Leu		
435	440	445
Lys Ser Ile Ile Leu Leu Asn Ser Gly Val Tyr Thr Phe Leu Ser Ser		
450	455	460
Thr Leu Lys Ser Leu Glu Lys Asp His Ile His Arg Val Leu Asp		
465	470	475
Lys Ile Thr Asp Thr Leu Ile His Leu Met Ala Lys Ala Gly Leu Thr		
485	490	495
Leu Gln Gln Gln His Gln Arg Leu Ala Gln Leu Leu Leu Ile Leu Ser		
500	505	510
His Ile Arg His Met Ser Asn Lys Gly Met Glu His Leu Tyr Ser Met		
515	520	525
Lys Cys Lys Asn Val Val Pro Leu Tyr Asp Leu Leu Leu Glu Met Leu		
530	535	540
Asp Ala His Arg Leu His Ala Pro Thr Ser Arg Gly Gly Ala Ser Val		
545	550	555
Glu Glu Thr Asp Gln Ser His Leu Ala Thr Ala Gly Ser Thr Ser Ser		
565	570	575
His Ser Leu Gln Lys Tyr Tyr Ile Thr Gly Glu Ala Glu Gly Phe Pro		
580	585	590
Ala Thr Val		
595		

<210> 217

<211> 427

<212> PRT

<213> Homo sapiens

<400> 217

Met	Ala	Val	Leu	Ala	Ala	Leu	Leu	Arg	Ser	Gly	Ala	Arg	Ser	Arg	Ser
1				5					10					15	

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Pro Leu Leu Arg Arg Leu Val Gln Glu Ile Arg Tyr Val Glu Arg Ser
    20          25          30
Tyr Val Ser Lys Pro Thr Leu Lys Glu Val Val Ile Val Ser Ala Thr
    35          40          45
Arg Thr Pro Ile Gly Ser Phe Leu Gly Ser Leu Ser Leu Leu Pro Ala
    50          55          60
Thr Lys Leu Gly Ser Ile Ala Ile Gln Gly Ala Ile Glu Lys Ala Gly
    65          70          75          80
Ile Pro Lys Glu Glu Val Lys Glu Ala Tyr Met Gly Asn Val Leu Gln
    85          90          95
Gly Gly Glu Gly Gln Ala Pro Thr Arg Gln Ala Val Leu Gly Ala Gly
    100          105          110
Leu Pro Ile Ser Thr Pro Cys Thr Thr Ile Asn Lys Val Cys Ala Ser
    115          120          125
Gly Met Lys Ala Ile Met Met Ala Ser Gln Ser Leu Met Cys Gly His
    130          135          140
Gln Asp Val Met Val Ala Gly Gly Met Glu Ser Met Ser Asn Val Pro
    145          150          155          160
Tyr Val Met Asn Arg Gly Ser Thr Pro Tyr Gly Gly Val Lys Leu Glu
    165          170          175
Asp Leu Ile Val Lys Asp Gly Leu Thr Asp Val Tyr Asn Lys Ile His
    180          185          190
Met Gly Ser Cys Ala Glu Asn Thr Ala Lys Lys Leu Asn Ile Ala Arg
    195          200          205
Asn Glu Gln Asp Ala Tyr Ala Ile Asn Ser Tyr Thr Arg Ser Lys Ala
    210          215          220
Ala Trp Glu Ala Gly Lys Phe Gly Asn Glu Val Ile Pro Val Thr Val
    225          230          235          240
Thr Val Lys Gly Gln Pro Asp Val Val Val Lys Glu Asp Glu Glu Tyr
    245          250          255
Lys Arg Val Asp Phe Ser Lys Val Pro Lys Leu Lys Thr Val Phe Gln
    260          265          270
Lys Glu Asn Gly Thr Val Thr Ala Ala Asn Ala Ser Thr Leu Asn Asp
    275          280          285
Gly Ala Ala Ala Leu Val Leu Met Thr Ala Asp Ala Ala Lys Arg Leu
    290          295          300
Asn Val Thr Pro Leu Ala Arg Ile Val Ala Phe Ala Asp Ala Ala Val
    305          310          315          320
Glu Pro Ile Asp Phe Pro Ile Ala Pro Val Tyr Ala Ala Ser Met Val
    325          330          335
Leu Lys Asp Val Gly Leu Lys Lys Glu Asp Ile Ala Met Trp Glu Val
    340          345          350
Asn Glu Ala Phe Ser Leu Val Val Leu Ala Asn Ile Lys Met Leu Glu
    355          360          365
Ile Asp Pro Gln Lys Val Asn Ile Asn Gly Gly Ala Val Ser Leu Gly
    370          375          380
His Pro Ile Gly Met Ser Gly Ala Arg Ile Val Gly His Leu Thr His
    385          390          395          400
Ala Leu Lys Gln Gly Glu Tyr Gly Leu Ala Ser Ile Cys Asn Gly Gly
    405          410          415
Gly Gly Ala Ser Ala Met Leu Ile Gln Lys Leu
    420          425

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<210> 218

<211> 273

<212> PRT

<213> Homo sapiens

<400> 218

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Met Ala Ala Ala Asp Gly Ala Leu Pro Glu Ala Ala Ala Leu Glu Gln
1          5          10          15
Pro Ala Glu Leu Pro Ala Ser Val Arg Ala Ser Ile Glu Arg Lys Arg
20          25          30
Gln Arg Ala Leu Met Leu Arg Gln Ala Arg Leu Ala Ala Arg Pro Tyr
35          40          45
Ser Ala Thr Ala Ala Ala Ala Thr Gly Gly Met Ala Asn Val Lys Ala
50          55          60
Ala Pro Lys Ile Ile Asp Thr Gly Gly Gly Phe Ile Leu Glu Glu Glu
65          70          75          80
Glu Glu Glu Glu Gln Lys Ile Gly Lys Val Val His Gln Pro Gly Pro

```

				85					90				95				
Val	Met	Glu	Phe	Asp	Tyr	Val	Ile	Cys	Glu	Glu	Cys	Gly	Lys	Glu	Phe		
			100					105					110				
Met	Asp	Ser	Tyr	Leu	Met	Asn	His	Phe	Asp	Leu	Pro	Thr	Cys	Asp	Asn		
		115					120					125					
Cys	Arg	Asp	Ala	Asp	Asp	Lys	His	Lys	Leu	Ile	Thr	Lys	Thr	Glu	Ala		
	130					135					140						
Lys	Gln	Glu	Tyr	Leu	Leu	Lys	Asp	Cys	Asp	Leu	Glu	Lys	Arg	Glu	Pro		
145					150					155					160		
Pro	Leu	Lys	Phe	Ile	Val	Lys	Lys	Asn	Pro	His	His	Ser	Gln	Trp	Gly		
			165						170					175			
Asp	Met	Lys	Leu	Tyr	Leu	Lys	Leu	Gln	Ile	Val	Lys	Arg	Ser	Leu	Glu		
		180						185					190				
Val	Trp	Gly	Ser	Gln	Glu	Ala	Leu	Glu	Glu	Ala	Lys	Glu	Val	Arg	Gln		
	195						200					205					
Glu	Asn	Arg	Glu	Lys	Met	Lys	Gln	Lys	Lys	Phe	Asp	Lys	Lys	Val	Lys		
	210					215					220						
Glu	Leu	Arg	Arg	Ala	Val	Arg	Ser	Ser	Val	Trp	Lys	Arg	Glu	Thr	Ile		
225					230					235					240		
Val	His	Gln	His	Glu	Tyr	Gly	Pro	Glu	Glu	Asn	Leu	Glu	Asp	Asp	Met		
			245						250					255			
Tyr	Arg	Lys	Thr	Cys	Thr	Met	Cys	Gly	His	Glu	Leu	Thr	Tyr	Glu	Lys		
			260					265					270				

Met

<210> 219

<211> 1227

<212> PRT

<213> Homo sapiens

<400> 219

Met	Asp	Ser	Phe	Asp	Leu	Ala	Leu	Leu	Gln	Glu	Trp	Asp	Leu	Glu	Ser		
1			5						10				15				
Leu	Cys	Val	Tyr	Glu	Pro	Asp	Arg	Asn	Ala	Leu	Arg	Arg	Lys	Glu	Arg		
		20						25					30				
Glu	Arg	Arg	Asn	Gln	Glu	Thr	Gln	Gln	Asp	Asp	Gly	Thr	Phe	Asn	Ser		
	35						40					45					
Ser	Tyr	Ser	Leu	Phe	Ser	Glu	Pro	Tyr	Lys	Thr	Asn	Lys	Gly	Asp	Glu		
	50					55					60						
Leu	Ser	Asn	Arg	Ile	Gln	Asn	Thr	Leu	Gly	Asn	Tyr	Asp	Glu	Met	Lys		
65				70					75					80			
Asp	Phe	Leu	Thr	Asp	Arg	Thr	Asn	Gln	Ser	His	Leu	Val	Gly	Val	Pro		
			85					90					95				
Lys	Pro	Gly	Val	Pro	Gln	Thr	Pro	Val	Asn	Lys	Ile	Asp	Glu	His	Phe		
		100						105					110				
Val	Ala	Asp	Ser	Arg	Ala	Gln	Asn	Gln	Pro	Ser	Ser	Ile	Cys	Ser	Thr		
	115						120					125					
Thr	Thr	Ser	Thr	Pro	Ala	Ala	Val	Pro	Val	Gln	Gln	Ser	Lys	Arg	Gly		
	130					135						140					
Thr	Met	Gly	Trp	Gln	Lys	Ala	Gly	His	Pro	Pro	Ser	Asp	Gly	Gln	Gln		
145				150					155					160			
Arg	Ala	Thr	Gln	Gly	Ser	Leu	Arg	Thr	Leu	Leu	Gly	Asp	Gly	Val			
			165					170					175				
Gly	Arg	Gln	Gln	Pro	Arg	Ala	Lys	Gln	Val	Cys	Asn	Val	Glu	Val	Gly		
	180							185					190				
Leu	Gln	Thr	Gln	Glu	Arg	Pro	Pro	Ala	Met	Ala	Ala	Lys	His	Ser	Ser		
	195					200						205					
Ser	Gly	His	Cys	Val	Gln	Asn	Phe	Pro	Pro	Ser	Leu	Ala	Ser	Lys	Pro		
	210					215					220						
Ser	Leu	Val	Gln	Gln	Lys	Pro	Thr	Ala	Tyr	Val	Arg	Pro	Met	Asp	Gly		
225					230					235				240			
Gln	Asp	Gln	Ala	Pro	Asp	Glu	Ser	Pro	Lys	Leu	Lys	Ser	Ser	Ser	Glu		
			245						250					255			
Thr	Ser	Val	His	Cys	Thr	Ser	Tyr	Arg	Gly	Val	Pro	Ala	Ser	Lys	Pro		
		260						265					270				
Glu	Pro	Ala	Arg	Ala	Lys	Ala	Lys	Leu	Ser	Lys	Phe	Ser	Ile	Pro	Lys		
	275					280						285					
Gln	Gly	Glu	Glu	Ser	Arg	Ser	Gly	Glu	Thr	Asn	Ser	Cys	Val	Glu	Glu		
	290					295					300						


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Ile Ile Arg Glu Met Thr Trp Leu Pro Pro Leu Ser Ala Ile Gln Ala
305          310          315          320
Pro Gly Lys Val Glu Pro Thr Lys Phe Pro Phe Pro Asn Lys Asp Ser
          325          330          335
Gln Leu Val Ser Ser Gly His Asn Asn Pro Lys Lys Gly Asp Ala Glu
          340          345          350
Pro Glu Ser Pro Asp Asn Gly Thr Ser Asn Thr Ser Met Leu Glu Asp
          355          360          365
Asp Leu Lys Leu Ser Ser Asp Glu Glu Glu Asn Glu Gln Gln Ala Ala
          370          375          380
Gln Arg Thr Ala Leu Arg Ala Leu Ser Asp Ser Ala Val Val Gln Gln
385          390          395          400
Pro Asn Cys Arg Thr Ser Val Pro Ser Ser Lys Gly Ser Ser Ser Ser
          405          410          415
Ser Ser Ser Gly Thr Ser Ser Ser Ser Ser Asp Ser Glu Ser Ser Ser
          420          425          430
Gly Ser Asp Ser Glu Thr Glu Ser Ser Ser Ser Glu Ser Glu Gly Ser
          435          440          445
Lys Pro Pro His Phe Ser Ser Pro Glu Ala Glu Pro Ala Ser Ser Asn
          450          455          460
Lys Trp Gln Leu Asp Lys Trp Leu Asn Lys Val Asn Pro His Lys Pro
465          470          475          480
Pro Ile Leu Ile Gln Asn Glu Ser His Gly Ser Glu Ser Asn Gln Tyr
          485          490          495
Tyr Asn Pro Val Lys Glu Asp Val Gln Asp Cys Gly Lys Val Pro Asp
          500          505          510
Val Cys Gln Pro Ser Leu Arg Glu Lys Glu Ile Lys Ser Thr Cys Lys
          515          520          525
Glu Glu Gln Arg Pro Arg Thr Ala Asn Lys Ala Pro Gly Ser Lys Gly
          530          535          540
Val Lys Gln Lys Ser Pro Pro Ala Ala Val Ala Val Ala Val Ser Ala
545          550          555          560
Ala Ala Pro Pro Pro Ala Val Pro Cys Ala Pro Ala Glu Asn Ala Pro
          565          570          575
Ala Pro Ala Arg Arg Ser Ala Gly Lys Lys Pro Thr Arg Arg Thr Glu
          580          585          590
Arg Thr Ser Ala Gly Asp Gly Ala Asn Cys His Arg Pro Glu Glu Pro
          595          600          605
Ala Ala Ala Asp Ala Leu Gly Thr Ser Val Val Val Pro Pro Glu Pro
          610          615          620
Thr Lys Thr Arg Pro Cys Gly Asn Asn Arg Ala Ser His Arg Lys Glu
625          630          635          640
Leu Arg Ser Ser Val Thr Cys Glu Lys Arg Arg Thr Arg Gly Leu Ser
          645          650          655
Arg Ile Val Pro Lys Ser Lys Glu Phe Ile Glu Thr Glu Ser Ser Ser
          660          665          670
Ser Ser Ser Ser Ser Asp Ser Asp Leu Glu Ser Glu Gln Glu Glu Tyr
          675          680          685
Pro Leu Ser Lys Ala Gln Thr Val Ala Ala Ser Ala Ser Ser Gly Asn
          690          695          700
Asp Gln Arg Leu Lys Glu Ala Ala Ala Asn Gly Gly Ser Gly Pro Arg
705          710          715          720
Ala Pro Val Gly Ser Ile Asn Ala Arg Thr Thr Ser Asp Ile Ala Lys
          725          730          735
Glu Leu Glu Glu Gln Phe Tyr Thr Leu Val Pro Phe Gly Arg Asn Glu
          740          745          750
Leu Leu Ser Pro Leu Lys Asp Ser Asp Glu Ile Arg Ser Leu Trp Val
          755          760          765
Lys Ile Asp Leu Thr Leu Leu Ser Arg Ile Pro Glu His Leu Pro Gln
          770          775          780
Glu Pro Gly Val Leu Ser Ala Pro Ala Thr Lys Asp Ser Glu Ser Ala
785          790          795          800
Pro Pro Ser His Thr Ser Asp Thr Pro Ala Glu Lys Ala Leu Pro Lys
          805          810          815
Ser Lys Arg Lys Arg Lys Cys Asp Asn Glu Asp Asp Tyr Arg Glu Ile
          820          825          830
Lys Lys Ser Gln Gly Glu Lys Asp Ser Ser Ser Arg Leu Ala Thr Ser
          835          840          845
Thr Ser Asn Thr Leu Ser Ala Asn His Cys Asn Met Asn Ile Asn Ser

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      850              855              860
Val Ala Ile Pro Ile Asn Lys Asn Glu Lys Met Leu Arg Ser Pro Ile
865              870              875              880
Ser Pro Leu Ser Asp Ala Ser Lys His Lys Tyr Thr Ser Glu Asp Leu
      885              890              895
Thr Ser Ser Ser Arg Pro Asn Gly Asn Ser Leu Phe Thr Ser Ala Ser
      900              905              910
Ser Ser Lys Lys Pro Lys Ala Asp Ser Gln Leu Gln Pro His Gly Gly
      915              920              925
Asp Leu Thr Lys Ala Ala His Asn Asn Ser Glu Asn Ile Pro Leu His
      930              935              940
Lys Ser Arg Pro Gln Thr Lys Pro Trp Ser Pro Gly Ser Asn Gly His
      945              950              955              960
Arg Asp Cys Lys Arg Gln Lys Leu Val Phe Asp Asp Met Pro Arg Ser
      965              970              975              980
Ala Asp Tyr Phe Met Gln Glu Ala Lys Arg Met Lys His Lys Ala Asp
      985              990
Ala Met Val Glu Lys Phe Gly Lys Ala Leu Asn Tyr Ala Glu Ala Ala
      995              1000              1005
Leu Ser Phe Ile Glu Cys Gly Asn Ala Met Glu Gln Gly Pro Met
      1010              1015              1020
Glu Ser Lys Ser Pro Tyr Tyr Leu Met Tyr Ser Glu Thr Val Glu
      1025              1030              1035
Leu Ile Arg Tyr Ala Met Arg Leu Lys Thr His Ser Gly Pro Asn
      1040              1045              1050
Ala Thr Pro Glu Asp Lys Gln Leu Ala Ala Leu Cys Tyr Arg Cys
      1055              1060              1065
Leu Ala Leu Leu Tyr Trp Arg Met Phe Arg Leu Lys Arg Asp His
      1070              1075              1080
Ala Val Lys Tyr Ser Lys Ala Leu Ile Asp Tyr Phe Lys Asn Ser
      1085              1090              1095
Ser Lys Ala Ala Gln Ala Pro Ser Pro Trp Gly Ala Ser Gly Lys
      1100              1105              1110
Ser Thr Gly Thr Pro Ser Pro Ile Ser Pro Asn Pro Phe Pro Gly
      1115              1120              1125
Ser Ser Val Gly Ser Gln Gly Ser Leu Ser Asn Ala Ser Ala Leu
      1130              1135              1140
Ser Pro Ser Thr Ile Val Ser Ile Pro Gln Arg Ile His Gln Met
      1145              1150              1155
Ala Ala Asn His Val Ser Ile Thr Asn Ser Ile Leu His Ser Tyr
      1160              1165              1170
Asp Tyr Trp Glu Met Ala Asp Asn Leu Ala Lys Glu Asn Arg Glu
      1175              1180              1185
Phe Phe Asn Asp Leu Asp Leu Leu Met Gly Pro Val Thr Leu His
      1190              1195              1200
Ser Ser Met Glu His Leu Val Gln Tyr Ser Gln Gln Gly Leu His
      1205              1210              1215
Trp Leu Arg Asn Ser Ala His Leu Ser
      1220              1225

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<210> 220

<211> 680

<212> PRT

<213> Homo sapiens

<400> 220

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Met Leu Pro Gln Ile Pro Phe Leu Leu Leu Val Ser Leu Asn Leu Val
1      5      10      15
His Gly Val Phe Tyr Ala Glu Arg Tyr Gln Met Pro Thr Gly Ile Lys
      20      25      30
Gly Pro Leu Pro Asn Thr Lys Thr Gln Phe Phe Ile Pro Tyr Thr Ile
      35      40      45
Lys Ser Lys Gly Ile Ala Val Arg Gly Glu Gln Gly Thr Pro Gly Pro
      50      55      60
Pro Gly Pro Ala Gly Pro Arg Gly His Pro Gly Pro Ser Gly Pro Pro
      65      70      75      80
Gly Lys Pro Gly Tyr Gly Ser Pro Gly Leu Gln Gly Glu Pro Gly Leu
      85      90      95
Pro Gly Pro Pro Gly Pro Ser Ala Val Gly Lys Pro Gly Val Pro Gly
      100      105      110

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Leu Pro Gly Lys Pro Gly Glu Arg Gly Pro Tyr Gly Pro Lys Gly Asp
 115 120 125
 Val Gly Pro Ala Gly Leu Pro Gly Pro Arg Gly Pro Pro Gly Pro Pro
 130 135 140
 Gly Ile Pro Gly Pro Ala Gly Ile Ser Val Pro Gly Lys Pro Gly Gln
 145 150 155 160
 Gln Gly Pro Thr Gly Ala Pro Gly Pro Arg Gly Phe Pro Gly Glu Lys
 165 170 175
 Gly Ala Pro Gly Val Pro Gly Met Asn Gly Gln Lys Gly Glu Met Gly
 180 185 190
 Tyr Gly Ala Pro Gly Arg Pro Gly Glu Arg Gly Leu Pro Gly Pro Gln
 195 200 205
 Gly Pro Thr Gly Pro Ser Gly Pro Pro Gly Val Gly Lys Arg Gly Glu
 210 215 220
 Asn Gly Val Pro Gly Gln Pro Gly Ile Lys Gly Asp Arg Gly Phe Pro
 225 230 235 240
 Gly Glu Met Gly Pro Ile Gly Pro Pro Gly Pro Gln Gly Pro Pro Gly
 245 250 255
 Glu Arg Gly Pro Glu Gly Ile Gly Lys Pro Gly Ala Ala Gly Ala Pro
 260 265 270
 Gly Gln Pro Gly Ile Pro Gly Thr Lys Gly Leu Pro Gly Ala Pro Gly
 275 280 285
 Ile Ala Gly Pro Pro Gly Pro Gly Phe Gly Lys Pro Gly Leu Pro
 290 295 300
 Gly Leu Lys Gly Glu Arg Gly Pro Ala Gly Leu Pro Gly Gly Pro Gly
 305 310 315 320
 Ala Lys Gly Glu Gln Gly Pro Ala Gly Leu Pro Gly Lys Pro Gly Leu
 325 330 335
 Thr Gly Pro Pro Gly Asn Met Gly Pro Gln Gly Pro Lys Gly Ile Pro
 340 345 350
 Gly Ser His Gly Leu Pro Gly Pro Lys Gly Glu Thr Gly Pro Ala Gly
 355 360 365
 Pro Ala Gly Tyr Pro Gly Ala Lys Gly Glu Arg Gly Ser Pro Gly Ser
 370 375 380
 Asp Gly Lys Pro Gly Tyr Pro Gly Lys Pro Gly Leu Asp Gly Pro Lys
 385 390 395 400
 Gly Asn Pro Gly Leu Pro Gly Pro Lys Gly Asp Pro Gly Val Gly Gly
 405 410 415
 Pro Pro Gly Leu Pro Gly Pro Val Gly Pro Ala Gly Ala Lys Gly Met
 420 425 430
 Pro Gly His Asn Gly Glu Ala Gly Pro Arg Gly Ala Pro Gly Ile Pro
 435 440 445
 Gly Thr Arg Gly Pro Ile Gly Pro Pro Gly Ile Pro Gly Phe Pro Gly
 450 455 460
 Ser Lys Gly Asp Pro Gly Ser Pro Gly Pro Pro Gly Pro Ala Gly Ile
 465 470 475 480
 Ala Thr Lys Gly Leu Asn Gly Pro Thr Gly Pro Pro Gly Pro Pro Gly
 485 490 495
 Pro Arg Gly His Ser Gly Glu Pro Gly Leu Pro Gly Pro Pro Gly Pro
 500 505 510
 Pro Gly Pro Pro Gly Gln Ala Val Met Pro Glu Gly Phe Ile Lys Ala
 515 520 525
 Gly Gln Arg Pro Ser Leu Ser Gly Thr Pro Leu Val Ser Ala Asn Gln
 530 535 540
 Gly Val Thr Gly Met Pro Val Ser Ala Phe Thr Val Ile Leu Ser Lys
 545 550 555 560
 Ala Tyr Pro Ala Ile Gly Thr Pro Ile Pro Phe Asp Lys Ile Leu Tyr
 565 570 575
 Asn Arg Gln Gln His Tyr Asp Pro Arg Thr Gly Ile Phe Thr Cys Gln
 580 585 590
 Ile Pro Gly Ile Tyr Tyr Phe Ser Tyr His Val His Val Lys Gly Thr
 595 600 605
 His Val Trp Val Gly Leu Tyr Lys Asn Gly Thr Pro Val Met Tyr Thr
 610 615 620
 Tyr Asp Glu Tyr Thr Lys Gly Tyr Leu Asp Gln Ala Ser Gly Ser Ala
 625 630 635 640
 Ile Ile Asp Leu Thr Glu Asn Asp Gln Val Trp Leu Gln Leu Pro Asn
 645 650 655
 Ala Glu Ser Asn Gly Leu Tyr Ser Ser Glu Tyr Val His Ser Ser Phe

660
 Ser Gly Phe Leu Val Ala Pro Met
 675 680

665
 670

<210> 221
 <211> 622
 <212> PRT
 <213> Homo sapiens
 <400> 221

Met Gly Leu Tyr Gly Gln Ala Cys Pro Ser Val Thr Ser Leu Arg Met
 1 5 10 15
 Thr Ser Glu Leu Glu Ser Ser Leu Thr Ser Met Asp Trp Leu Pro Gln
 20 25 30
 Leu Thr Met Arg Ala Ala Ile Gln Lys Ser Asp Ala Thr Gln Asn Ala
 35 40 45
 His Gly Thr Gly Ile Ser Lys Lys Asn Ala Leu Leu Asp Pro Asn Thr
 50 55 60
 Thr Leu Asp Gln Glu Glu Val Gln Gln His Lys Asp Gly Lys Pro Pro
 65 70 75 80
 Tyr Ser Tyr Ala Ser Leu Ile Thr Phe Ala Ile Asn Ser Ser Pro Lys
 85 90 95
 Lys Lys Met Thr Leu Ser Glu Ile Tyr Gln Trp Ile Cys Asp Asn Phe
 100 105 110
 Pro Tyr Tyr Arg Glu Ala Gly Ser Gly Trp Lys Asn Ser Ile Arg His
 115 120 125
 Asn Leu Ser Leu Asn Lys Cys Phe Leu Lys Val Pro Arg Ser Lys Asp
 130 135 140
 Asp Pro Gly Lys Gly Ser Tyr Trp Ala Ile Asp Thr Asn Pro Lys Glu
 145 150 155 160
 Asp Ala Leu Pro Thr Arg Pro Lys Lys Arg Ala Arg Ser Val Glu Arg
 165 170 175
 Ala Ser Thr Pro Tyr Ser Ile Asp Ser Asp Ser Leu Gly Met Glu Cys
 180 185 190
 Ile Ile Ser Gly Ser Ala Ser Pro Thr Leu Ala Ile Asn Thr Val Thr
 195 200 205
 Asn Lys Val Thr Leu Tyr Asn Thr Asp Gln Asp Gly Ser Asp Ser Pro
 210 215 220
 Arg Ser Ser Leu Asn Asn Ser Leu Ser Asp Gln Ser Leu Ala Ser Val
 225 230 235 240
 Asn Leu Asn Ser Val Gly Ser Val His Ser Tyr Thr Pro Val Thr Ser
 245 250 255
 His Pro Glu Ser Val Ser Gln Ser Leu Thr Pro Gln Gln Gln Pro Gln
 260 265 270
 Tyr Asn Leu Pro Glu Arg Asp Lys Gln Leu Leu Phe Ser Glu Tyr Asn
 275 280 285
 Phe Glu Asp Leu Ser Ala Ser Phe Arg Ser Leu Tyr Lys Ser Val Phe
 290 295 300
 Glu Gln Ser Leu Ser Gln Gln Gly Leu Met Asn Ile Pro Ser Glu Ser
 305 310 315 320
 Ser Gln Gln Ser His Thr Ser Cys Thr Tyr Gln His Ser Pro Ser Ser
 325 330 335
 Thr Val Ser Thr His Pro His Ser Asn Gln Ser Ser Leu Ser Asn Ser
 340 345 350
 His Gly Ser Gly Leu Asn Thr Thr Gly Ser Asn Ser Val Ala Gln Val
 355 360 365
 Ser Leu Ser His Pro Gln Met His Pro Gln Pro Ser Pro His Pro Pro
 370 375 380
 His Arg Pro His Gly Leu Pro Gln His Pro Gln Arg Ser Pro His Pro
 385 390 395 400
 Ala Pro His Pro Gln Gln His Ser Gln Leu Gln Ser Pro His Pro Gln
 405 410 415
 His Pro Ser Pro His Gln His Ile Gln His His Pro Asn His Gln His
 420 425 430
 Gln Thr Leu Thr His Gln Ala Pro Pro Pro Pro Gln Gln Val Ser Cys
 435 440 445
 Asn Ser Gly Val Ser Asn Asp Trp Tyr Ala Thr Leu Asp Met Leu Lys
 450 455 460
 Glu Ser Cys Arg Ile Ala Ser Ser Val Asn Trp Ser Asp Val Asp Leu
 465 470 475 480

Ser Gln Phe Gln Gly Leu Met Glu Ser Met Arg Gln Ala Asp Leu Lys
 485 490 495
 Asn Trp Ser Leu Asp Gln Val Gln Phe Ala Asp Leu Cys Ser Ser Leu
 500 505 510
 Asn Gln Phe Phe Thr Gln Thr Gly Leu Ile His Ser Gln Ser Asn Val
 515 520 525
 Gln Gln Asn Val Cys His Gly Ala Met His Pro Thr Lys Pro Ser Gln
 530 535 540
 His Ile Gly Thr Gly Asn Leu Tyr Ile Asp Ser Arg Gln Asn Leu Pro
 545 550 555 560
 Pro Ser Val Met Pro Pro Gly Tyr Pro His Ile Pro Gln Ala Leu
 565 570 575
 Ser Thr Pro Gly Thr Thr Met Ala Gly His His Arg Ala Met Asn Gln
 580 585 590
 Gln His Met Met Pro Ser Gln Ala Phe Gln Met Arg Arg Ser Leu Pro
 595 600 605
 Pro Asp Asp Ile Gln Asp Asp Phe Asp Trp Asp Ser Ile Val
 610 615 620

<210> 222

<211> 441

<212> PRT

<213> Homo sapiens

<400> 222

Met Val Pro Pro Lys Leu His Val Leu Phe Cys Leu Cys Gly Cys Leu
 1 5 10 15
 Ala Val Val Tyr Pro Phe Asp Trp Gln Tyr Ile Asn Pro Val Ala His
 20 25 30
 Met Lys Ser Ser Ala Trp Val Asn Lys Ile Gln Val Leu Met Ala Ala
 35 40 45
 Ala Ser Phe Gly Gln Thr Lys Ile Pro Arg Gly Asn Gly Pro Tyr Ser
 50 55 60
 Val Gly Cys Thr Asp Leu Met Phe Asp His Thr Asn Lys Gly Thr Phe
 65 70 75 80
 Leu Arg Leu Tyr Tyr Pro Ser Gln Asp Asn Asp Arg Leu Asp Thr Leu
 85 90 95
 Trp Ile Pro Asn Lys Glu Tyr Phe Trp Gly Leu Ser Lys Phe Leu Gly
 100 105 110
 Thr His Trp Leu Met Gly Asn Ile Leu Arg Leu Leu Phe Gly Ser Met
 115 120 125
 Thr Thr Pro Ala Asn Trp Asn Ser Pro Leu Arg Pro Gly Glu Lys Tyr
 130 135 140
 Pro Leu Val Val Phe Ser His Gly Leu Gly Ala Phe Arg Thr Leu Tyr
 145 150 155 160
 Ser Ala Ile Gly Ile Asp Leu Ala Ser His Gly Phe Ile Val Ala Ala
 165 170 175
 Val Glu His Arg Asp Arg Ser Ala Ser Ala Thr Tyr Tyr Phe Lys Asp
 180 185 190
 Gln Ser Ala Ala Glu Ile Gly Asp Lys Ser Trp Leu Tyr Leu Arg Thr
 195 200 205
 Leu Lys Gln Glu Glu Thr His Ile Arg Asn Glu Gln Val Arg Gln
 210 215 220
 Arg Ala Lys Glu Cys Ser Gln Ala Leu Ser Leu Ile Leu Asp Ile Asp
 225 230 235 240
 His Gly Lys Pro Val Lys Asn Ala Leu Asp Leu Lys Phe Asp Met Glu
 245 250 255
 Gln Leu Lys Asp Ser Ile Asp Arg Glu Lys Ile Ala Val Ile Gly His
 260 265 270
 Ser Phe Gly Gly Ala Thr Val Ile Gln Thr Leu Ser Glu Asp Gln Arg
 275 280 285
 Phe Arg Cys Gly Ile Ala Leu Asp Ala Trp Met Phe Pro Leu Gly Asp
 290 295 300
 Glu Val Tyr Ser Arg Ile Pro Gln Pro Leu Phe Ile Asn Ser Glu
 305 310 315 320
 Tyr Phe Gln Tyr Pro Ala Asn Ile Ile Lys Met Lys Lys Cys Tyr Ser
 325 330 335
 Pro Asp Lys Glu Arg Lys Met Ile Thr Ile Arg Gly Ser Val His Gln
 340 345 350
 Asn Phe Ala Asp Phe Thr Phe Ala Thr Gly Lys Ile Ile Gly His Met

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          355          360          365
Leu Lys Leu Lys Gly Asp Ile Asp Ser Asn Ala Ala Ile Asp Leu Ser
   370          375          380
Asn Lys Ala Ser Leu Ala Phe Leu Gln Lys His Leu Gly Leu His Lys
385          390          395          400
Asp Phe Asp Gln Trp Asp Cys Leu Ile Glu Gly Asp Asp Glu Asn Leu
   405          410          415
Ile Pro Gly Thr Asn Ile Asn Thr Thr Asn Gln His Ile Met Leu Gln
   420          425          430
Asn Ser Ser Gly Ile Glu Lys Tyr Asn
   435          440

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<210> 223
 <211> 148
 <212> PRT
 <213> Homo sapiens
 <400> 223

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Met Arg Gly Arg Glu Leu Pro Leu Val Leu Leu Ala Leu Val Leu Cys
1          5          10          15
Leu Ala Pro Arg Gly Arg Ala Val Pro Leu Pro Ala Gly Gly Gly Thr
   20          25          30
Val Leu Thr Lys Met Tyr Pro Arg Gly Asn His Trp Ala Val Gly His
   35          40          45
Leu Met Gly Lys Lys Ser Thr Gly Glu Ser Ser Ser Val Ser Glu Arg
   50          55          60
Gly Ser Leu Lys Gln Gln Leu Arg Glu Tyr Ile Arg Trp Glu Glu Ala
65          70          75          80
Ala Arg Asn Leu Leu Gly Leu Ile Glu Ala Lys Glu Asn Arg Asn His
   85          90          95
Gln Pro Pro Gln Pro Lys Ala Leu Gly Asn Gln Gln Pro Ser Trp Asp
  100          105          110
Ser Glu Asp Ser Ser Asn Phe Lys Asp Val Gly Ser Lys Gly Lys Val
  115          120          125
Gly Arg Leu Ser Ala Pro Gly Ser Gln Arg Glu Gly Arg Asn Pro Gln
  130          135          140
Leu Asn Gln Gln
145

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<210> 224
 <211> 491
 <212> PRT
 <213> Homo sapiens
 <400> 224

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Met Glu Leu Ser Val Leu Leu Phe Leu Ala Leu Leu Thr Gly Leu Leu
1          5          10          15
Leu Leu Leu Val Gln Arg His Pro Asn Thr His Asp Arg Leu Pro Pro
   20          25          30
Gly Pro Arg Pro Leu Pro Leu Leu Gly Asn Leu Leu Gln Met Asp Arg
   35          40          45
Arg Gly Leu Leu Lys Ser Phe Leu Arg Phe Arg Glu Lys Tyr Gly Asp
   50          55          60
Val Phe Thr Val His Leu Gly Pro Arg Pro Val Val Met Leu Cys Gly
65          70          75          80
Val Glu Ala Ile Arg Glu Ala Leu Val Asp Lys Ala Glu Ala Phe Ser
   85          90          95
Gly Arg Gly Lys Ile Ala Met Val Asp Pro Phe Phe Arg Gly Tyr Gly
  100          105          110
Val Ile Phe Ala Asn Gly Asn Arg Trp Lys Val Leu Arg Arg Phe Ser
  115          120          125
Val Thr Thr Met Arg Asp Phe Gly Met Gly Lys Arg Ser Val Glu Glu
  130          135          140
Arg Ile Gln Glu Glu Ala Gln Cys Leu Ile Glu Glu Leu Arg Lys Ser
145          150          155          160
Lys Gly Ala Leu Met Asp Pro Thr Phe Leu Phe Gln Ser Ile Thr Ala
   165          170          175
Asn Ile Ile Cys Ser Ile Val Phe Gly Lys Arg Phe His Tyr Gln Asp
  180          185          190
Gln Glu Phe Leu Lys Met Leu Asn Leu Phe Tyr Gln Thr Phe Ser Leu
  195          200          205

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Ile Ser Ser Val Phe Gly Gln Leu Phe Glu Leu Phe Ser Gly Phe Leu
 210                               215                               220
Lys Tyr Phe Pro Gly Ala His Arg Gln Val Tyr Lys Asn Leu Gln Glu
 225                               230                               235                               240
Ile Asn Ala Tyr Ile Gly His Ser Val Glu Lys His Arg Glu Thr Leu
                               245                               250                               255
Asp Pro Ser Ala Pro Lys Asp Leu Ile Asp Thr Tyr Leu Leu His Met
                               260                               265                               270
Glu Lys Glu Lys Ser Asn Ala His Ser Glu Phe Ser His Gln Asn Leu
                               275                               280                               285
Asn Leu Asn Thr Leu Ser Leu Phe Phe Ala Gly Thr Glu Thr Thr Ser
                               290                               295                               300
Thr Thr Leu Arg Tyr Gly Phe Leu Leu Met Leu Lys Tyr Pro His Val
 305                               310                               315                               320
Ala Glu Arg Val Tyr Arg Glu Ile Glu Gln Val Ile Gly Pro His Arg
                               325                               330                               335
Pro Pro Glu Leu His Asp Arg Ala Lys Met Pro Tyr Thr Glu Ala Val
                               340                               345                               350
Ile Tyr Glu Ile Gln Arg Phe Ser Asp Leu Leu Pro Met Gly Val Pro
                               355                               360                               365
His Ile Val Thr Gln His Thr Ser Phe Arg Gly Tyr Ile Ile Pro Lys
 370                               375                               380
Asp Thr Glu Val Phe Leu Ile Leu Ser Thr Ala Leu His Asp Pro His
 385                               390                               395                               400
Tyr Phe Glu Lys Pro Asp Ala Phe Asn Pro Asp His Phe Leu Asp Ala
                               405                               410                               415
Asn Gly Ala Leu Lys Lys Thr Glu Ala Phe Ile Pro Phe Ser Leu Gly
                               420                               425                               430
Lys Arg Ile Cys Leu Gly Glu Gly Ile Ala Arg Ala Glu Leu Phe Leu
                               435                               440                               445
Phe Phe Thr Thr Ile Leu Gln Asn Phe Ser Met Ala Ser Pro Val Ala
                               450                               455                               460
Pro Glu Asp Ile Asp Leu Thr Pro Gln Glu Cys Gly Val Gly Lys Ile
 465                               470                               475                               480
Pro Pro Thr Tyr Gln Ile Arg Phe Leu Pro Arg
                               485                               490

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<210> 225

<211> 359

<212> PRT

<213> Homo sapiens

<400> 225

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Met Val Arg Pro Met Leu Leu Leu Ser Leu Gly Leu Leu Ala Gly Leu
 1                               5                               10                               15
Leu Pro Ala Leu Ala Ala Cys Pro Gln Asn Cys His Cys His Ser Asp
                               20                               25                               30
Leu Gln His Val Ile Cys Asp Lys Val Gly Leu Gln Lys Ile Pro Lys
 35                               40                               45
Val Ser Glu Lys Thr Lys Leu Leu Asn Leu Gln Arg Asn Asn Phe Pro
 50                               55                               60
Val Leu Ala Ala Asn Ser Phe Arg Ala Met Pro Asn Leu Val Ser Leu
 65                               70                               75                               80
His Leu Gln His Cys Gln Ile Arg Glu Val Ala Ala Gly Ala Phe Arg
                               85                               90                               95
Gly Leu Lys Gln Leu Ile Tyr Leu Tyr Leu Ser His Asn Asp Ile Arg
                               100                               105                               110
Val Val Arg Ala Gly Ala Phe Asp Asp Leu Thr Glu Leu Thr Tyr Leu
                               115                               120                               125
Tyr Leu Asp His Asn Lys Val Thr Glu Leu Pro Arg Gly Leu Leu Ser
 130                               135                               140
Pro Leu Val Asn Leu Phe Ile Leu Gln Leu Asn Asn Asn Lys Ile Arg
 145                               150                               155                               160
Glu Leu Arg Ala Gly Pro Phe Gln Gly Ala Lys Asp Leu Arg Trp Leu
                               165                               170                               175
Tyr Leu Ser Glu Asn Ala Leu Ser Ser Leu Gln Pro Gly Ala Leu Asp
                               180                               185                               190
Asp Val Glu Asn Leu Ala Lys Phe His Val Asp Arg Asn Gln Leu Ser
 195                               200                               205
Ser Tyr Pro Ser Ala Ala Leu Ser Lys Leu Arg Val Val Glu Glu Leu

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210	215	220
Lys Leu Ser His Asn Pro	Leu Lys Ser Ile Pro	Asp Asn Ala Phe Gln
225	230	235
Ser Phe Gly Arg Tyr	Leu Glu Thr Leu Trp	Leu Asp Asn Thr Asn Leu
245	250	255
Glu Lys Phe Ser Asp Gly	Ala Phe Leu Gly Val	Thr Thr Leu Lys His
260	265	270
Val His Leu Glu Asn Asn	Arg Leu Asn Gln Leu	Pro Ser Asn Phe Pro
275	280	285
Phe Asp Ser Leu Glu Thr	Leu Ala Leu Thr Asn	Asn Pro Trp Lys Cys
290	295	300
Thr Cys Gln Leu Arg Gly	Leu Arg Arg Trp Leu	Glu Ala Lys Ala Ser
305	310	315
Arg Pro Asp Ala Thr Cys	Ala Ser Pro Ala Lys	Phe Lys Gly Gln His
325	330	335
Ile Arg Asp Thr Asp Ala	Phe Arg Ser Cys Lys	Phe Pro Thr Lys Arg
340	345	350
Ser Lys Lys Ala Gly Arg	His	
355		

<210> 226

<211> 276

<212> PRT

<213> Homo sapiens

<400> 226

Met Leu Ala Trp Arg Asp Gly Glu Leu Glu Ala Glu Thr Ser Ser Ser	1	5	10	15
Leu Phe Leu Leu Ala Met Gln Val Trp Met Cys Gly Gly Arg Met Glu	20	25	30	
Asp Ile Pro Cys Ser Arg Val Gly His Ile Tyr Arg Lys Tyr Val Pro	35	40	45	
Tyr Lys Val Pro Ala Gly Val Ser Leu Ala Arg Val Arg Thr Leu Lys	50	55	60	
Arg Val Ala Glu Val Trp Met Asp Glu Tyr Ala Glu Tyr Ile Tyr Gln	65	70	75	80
Arg Arg Pro Glu Tyr Arg His Leu Ser Ala Gly Asp Val Ala Val Gln	85	90	95	
Lys Lys Leu Arg Ser Ser Leu Asn Cys Lys Ser Phe Lys Trp Phe Met	100	105	110	
Thr Lys Ile Ala Trp Asp Leu Pro Lys Phe Tyr Pro Pro Val Glu Pro	115	120	125	
Pro Ala Ala Ala Trp Gly Glu Ile Arg Asn Val Gly Thr Gly Leu Cys	130	135	140	
Ala Asp Thr Lys His Gly Ala Leu Gly Ser Pro Leu Arg Leu Glu Gly	145	150	155	160
Cys Val Arg Gly Arg Gly Glu Ala Ala Trp Asn Asn Met Gln Val Phe	165	170	175	
Thr Phe Thr Trp Arg Glu Asp Ile Arg Pro Gly Asp Pro Gln His Thr	180	185	190	
Lys Lys Phe Cys Phe Asp Ala Ile Ser His Thr Ser Pro Val Thr Leu	195	200	205	
Tyr Asp Cys His Ser Met Lys Gly Asn Gln Leu Trp Lys Tyr Arg Lys	210	215	220	
Asp Lys Thr Leu Tyr His Pro Val Ser Gly Ser Cys Met Asp Cys Ser	225	230	235	240
Glu Ser Asp His Arg Ile Phe Met Asn Thr Cys Asn Pro Ser Ser Leu	245	250	255	
Thr Gln Gln Trp Leu Phe Glu His Thr Asn Ser Thr Val Leu Glu Lys	260	265	270	
Phe Asn Arg Asn	275			

<210> 227

<211> 161

<212> PRT

<213> Homo sapiens

<400> 227

Met Thr Leu Glu Glu Leu Val Ala Cys Asp Asn Ala Ala Gln Lys Met	1	5	10	15
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Gln Thr Val Thr Ala Ala Val Glu Glu Leu Leu Val Ala Ala Gln Arg
 20 25 30
 Gln Asp Arg Leu Thr Val Gly Val Tyr Glu Ser Ala Lys Leu Met Asn
 35 40 45
 Val Asp Pro Asp Ser Val Val Leu Cys Leu Leu Ala Ile Asp Glu Glu
 50 55 60
 Glu Glu Asp Asp Ile Ala Leu Gln Ile His Phe Thr Leu Ile Gln Ser
 65 70 75 80
 Phe Cys Cys Asp Asn Asp Ile Asn Ile Val Arg Val Ser Gly Asn Ala
 85 90 95
 Arg Leu Ala Gln Leu Leu Gly Glu Pro Ala Glu Thr Gln Gly Thr Thr
 100 105 110
 Glu Ala Arg Asp Leu His Cys Leu Pro Phe Leu Gln Asn Pro His Thr
 115 120 125
 Asp Ala Trp Lys Ser His Gly Leu Val Glu Val Ala Ser Tyr Cys Glu
 130 135 140
 Glu Ser Arg Gly Asn Asn Gln Trp Val Pro Tyr Ile Ser Leu Gln Glu
 145 150 155 160
 Arg

<210> 228
 <211> 281
 <212> PRT
 <213> Homo sapiens
 <400> 228

Met Ala Ser Arg Gly Arg Arg Pro Glu His Gly Gly Pro Pro Glu Leu
 1 5 10 15
 Phe Tyr Asp Glu Thr Glu Ala Arg Lys Tyr Val Arg Asn Ser Arg Met
 20 25 30
 Ile Asp Ile Gln Thr Arg Met Ala Gly Arg Ala Leu Glu Leu Tyr
 35 40 45
 Leu Pro Glu Asn Lys Pro Cys Tyr Leu Leu Asp Ile Gly Cys Gly Thr
 50 55 60
 Gly Leu Ser Gly Ser Tyr Leu Ser Asp Glu Gly His Tyr Trp Val Gly
 65 70 75 80
 Leu Asp Ile Ser Pro Ala Met Leu Asp Glu Ala Val Asp Arg Glu Ile
 85 90 95
 Glu Gly Asp Leu Leu Leu Gly Asp Met Gly Gln Gly Ile Pro Phe Lys
 100 105 110
 Pro Gly Thr Phe Asp Gly Cys Ile Ser Ile Ser Ala Val Gln Trp Leu
 115 120 125
 Cys Asn Ala Asn Lys Lys Ser Glu Asn Pro Ala Lys Arg Leu Tyr Cys
 130 135 140
 Phe Phe Ala Ser Leu Phe Ser Val Leu Val Arg Gly Ser Arg Ala Val
 145 150 155 160
 Leu Gln Leu Tyr Pro Glu Asn Ser Glu Gln Leu Glu Leu Ile Thr Thr
 165 170 175
 Gln Ala Thr Lys Ala Gly Phe Ser Gly Gly Met Val Val Asp Tyr Pro
 180 185 190
 Asn Ser Ala Lys Ala Lys Lys Phe Tyr Leu Cys Leu Phe Ser Gly Pro
 195 200 205
 Ser Thr Phe Ile Pro Glu Gly Leu Ser Glu Asn Gln Asp Glu Val Glu
 210 215 220
 Pro Arg Glu Ser Val Phe Thr Asn Glu Arg Phe Pro Leu Arg Met Ser
 225 230 235 240
 Arg Arg Gly Met Val Arg Lys Ser Arg Ala Trp Val Leu Glu Lys Lys
 245 250 255
 Glu Arg His Arg Arg Gln Gly Arg Glu Val Arg Pro Asp Thr Gln Tyr
 260 265 270
 Thr Gly Arg Lys Arg Lys Pro Arg Phe
 275 280

<210> 229
 <211> 525
 <212> PRT
 <213> Homo sapiens
 <400> 229

Met Ala Ala Gly Gly Ser Gly Gly Arg Ala Ser Cys Pro Pro Gly Val

1				5				10				15			
Gly	Val	Gly	Pro	Gly	Thr	Gly	Gly	Ser	Pro	Gly	Pro	Ser	Ala	Asn	Ala
			20					25					30		
Ala	Ala	Thr	Pro	Ala	Pro	Gly	Asn	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Ala
		35					40					45			
Ala	Ala	Ala	Ala	Ala	Ala	Pro	Gly	Pro	Thr	Pro	Pro	Ala	Pro	Pro	Gly
		50				55					60				
Pro	Gly	Thr	Asp	Ala	Gln	Ala	Ala	Gly	Ala	Glu	Arg	Ala	Glu	Glu	Ala
65					70					75					80
Ala	Gly	Pro	Gly	Ala	Ala	Ala	Leu	Gln	Arg	Glu	Ala	Ala	Tyr	Asn	Trp
				85				90						95	
Gln	Ala	Ser	Lys	Pro	Thr	Val	Gln	Glu	Arg	Phe	Ala	Phe	Leu	Phe	Asn
			100					105					110		
Asn	Glu	Val	Leu	Cys	Asp	Val	His	Phe	Leu	Val	Gly	Lys	Gly	Leu	Ser
		115					120					125			
Ser	Gln	Arg	Ile	Pro	Ala	His	Arg	Phe	Val	Leu	Ala	Val	Gly	Ser	Ala
130						135					140				
Val	Phe	Asp	Ala	Met	Phe	Asn	Gly	Gly	Met	Ala	Thr	Thr	Ser	Thr	Glu
145					150					155					160
Ile	Glu	Leu	Pro	Asp	Val	Glu	Pro	Ala	Ala	Phe	Leu	Ala	Leu	Leu	Lys
				165				170						175	
Phe	Leu	Tyr	Ser	Asp	Glu	Val	Gln	Ile	Gly	Pro	Glu	Thr	Val	Met	Thr
			180					185					190		
Thr	Leu	Tyr	Thr	Ala	Lys	Lys	Tyr	Ala	Val	Pro	Ala	Leu	Glu	Ala	His
		195					200					205			
Cys	Val	Glu	Phe	Leu	Lys	Lys	Asn	Leu	Arg	Ala	Asp	Asn	Ala	Phe	Met
		210				215					220				
Leu	Leu	Thr	Gln	Ala	Arg	Leu	Phe	Asp	Glu	Pro	Gln	Leu	Ala	Ser	Leu
225					230					235					240
Cys	Leu	Glu	Asn	Ile	Asp	Lys	Asn	Thr	Ala	Asp	Ala	Ile	Thr	Ala	Glu
				245					250					255	
Gly	Phe	Thr	Asp	Ile	Asp	Leu	Asp	Thr	Leu	Val	Ala	Val	Leu	Glu	Arg
		260						265					270		
Asp	Thr	Leu	Gly	Ile	Arg	Glu	Val	Arg	Leu	Phe	Asn	Ala	Val	Val	Arg
		275						280				285			
Trp	Ser	Glu	Ala	Glu	Cys	Gln	Arg	Gln	Gln	Leu	Gln	Val	Thr	Pro	Glu
		290				295					300				
Asn	Arg	Arg	Lys	Val	Leu	Gly	Lys	Ala	Leu	Gly	Leu	Ile	Arg	Phe	Pro
305					310					315					320
Leu	Met	Thr	Ile	Glu	Glu	Phe	Ala	Ala	Gly	Pro	Ala	Gln	Ser	Gly	Ile
				325					330					335	
Leu	Val	Asp	Arg	Glu	Val	Val	Ser	Leu	Phe	Leu	His	Phe	Thr	Val	Asn
		340						345					350		
Pro	Lys	Pro	Arg	Val	Glu	Phe	Ile	Asp	Arg	Pro	Arg	Cys	Cys	Leu	Arg
		355				360						365			
Gly	Lys	Glu	Cys	Ser	Ile	Asn	Arg	Phe	Gln	Gln	Val	Glu	Ser	Arg	Trp
		370				375					380				
Gly	Tyr	Ser	Gly	Thr	Ser	Asp	Arg	Ile	Arg	Phe	Ser	Val	Asn	Lys	Arg
385					390					395					400
Ile	Phe	Val	Val	Gly	Phe	Gly	Leu	Tyr	Gly	Ser	Ile	His	Gly	Pro	Thr
				405					410					415	
Asp	Tyr	Gln	Val	Asn	Ile	Gln	Ile	Ile	His	Thr	Asp	Ser	Asn	Thr	Val
			420					425					430		
Leu	Gly	Gln	Asn	Asp	Thr	Gly	Phe	Ser	Cys	Asp	Gly	Ser	Ala	Ser	Thr
		435					440					445			
Phe	Arg	Val	Met	Phe	Lys	Glu	Pro	Val	Glu	Val	Leu	Pro	Asn	Val	Asn
		450				455					460				
Tyr	Thr	Ala	Cys	Ala	Thr	Leu	Lys	Gly	Pro	Asp	Ser	His	Tyr	Gly	Thr
465					470					475					480
Lys	Gly	Leu	Arg	Lys	Val	Thr	His	Glu	Ser	Pro	Thr	Thr	Gly	Ala	Lys
				485					490					495	
Thr	Cys	Phe	Thr	Phe	Cys	Tyr	Ala	Ala	Gly	Asn	Asn	Asn	Gly	Thr	Ser
			500					505					510		
Val	Glu	Asp	Gly	Gln	Ile	Pro	Glu	Val	Ile	Phe	Tyr	Thr			
		515					520					525			

<210> 230

<211> 933

<212> PRT

```

<213> Homo sapiens
<400> 230
Met Thr Glu Leu Lys Ala Lys Gly Pro Arg Ala Pro His Val Ala Gly
1      5      10      15
Gly Pro Pro Ser Pro Glu Val Gly Ser Pro Leu Leu Cys Arg Pro Ala
20      25      30
Ala Gly Pro Phe Pro Gly Ser Gln Thr Ser Asp Thr Leu Pro Glu Val
35      40      45
Ser Ala Ile Pro Ile Ser Leu Asp Gly Leu Leu Phe Pro Arg Pro Cys
50      55      60
Gln Gly Gln Asp Pro Ser Asp Glu Lys Thr Gln Asp Gln Gln Ser Leu
65      70      75      80
Ser Asp Val Glu Gly Ala Tyr Ser Arg Ala Glu Ala Thr Arg Gly Ala
85      90      95
Gly Gly Ser Ser Ser Ser Pro Pro Glu Lys Asp Ser Gly Leu Leu Asp
100     105     110
Ser Val Leu Asp Thr Leu Leu Ala Pro Ser Gly Pro Gly Gln Ser Gln
115     120     125
Pro Ser Pro Pro Ala Cys Glu Val Thr Ser Ser Trp Cys Leu Phe Gly
130     135     140
Pro Glu Leu Pro Glu Asp Pro Pro Ala Ala Pro Ala Thr Gln Arg Val
145     150     155     160
Leu Ser Pro Leu Met Ser Arg Ser Gly Cys Lys Val Gly Asp Ser Ser
165     170     175
Gly Thr Ala Ala Ala His Lys Val Leu Pro Arg Gly Leu Ser Pro Ala
180     185     190
Arg Gln Leu Leu Leu Pro Ala Ser Glu Ser Pro His Trp Ser Gly Ala
195     200     205
Pro Val Lys Pro Ser Pro Gln Ala Ala Ala Val Glu Val Glu Glu Glu
210     215     220
Asp Ser Ser Glu Ser Glu Glu Ser Ala Gly Pro Leu Leu Lys Gly Lys
225     230     235     240
Pro Arg Ala Leu Gly Gly Ala Ala Ala Gly Gly Gly Ala Ala Ala Cys
245     250     255
Pro Pro Gly Ala Ala Ala Gly Gly Val Ala Leu Val Pro Lys Glu Asp
260     265     270
Ser Arg Phe Ser Ala Pro Arg Val Ala Leu Val Glu Gln Asp Ala Pro
275     280     285
Met Ala Pro Gly Arg Ser Pro Leu Ala Thr Thr Val Met Asp Phe Ile
290     295     300
His Val Pro Ile Leu Pro Leu Asn His Ala Leu Leu Ala Ala Arg Thr
305     310     315     320
Arg Gln Leu Leu Glu Asp Glu Ser Tyr Asp Gly Gly Ala Gly Ala Ala
325     330     335
Ser Ala Phe Ala Pro Pro Arg Thr Ser Pro Cys Ala Ser Ser Thr Pro
340     345     350
Val Ala Val Gly Asp Phe Pro Asp Cys Ala Tyr Pro Pro Asp Ala Glu
355     360     365
Pro Lys Asp Asp Ala Tyr Pro Leu Tyr Ser Asp Phe Gln Pro Pro Ala
370     375     380
Leu Lys Ile Lys Glu Glu Glu Glu Gly Ala Glu Ala Ser Ala Arg Ser
385     390     395     400
Pro Arg Ser Tyr Leu Val Ala Gly Ala Asn Pro Ala Ala Phe Pro Asp
405     410     415
Phe Pro Leu Gly Pro Pro Pro Pro Leu Pro Pro Arg Ala Thr Pro Ser
420     425     430
Arg Pro Gly Glu Ala Ala Val Thr Ala Ala Pro Ala Ser Ala Ser Val
435     440     445
Ser Ser Ala Ser Ser Ser Gly Ser Thr Leu Glu Cys Ile Leu Tyr Lys
450     455     460
Ala Glu Gly Ala Pro Pro Gln Gln Gly Pro Phe Ala Pro Pro Pro Cys
465     470     475     480
Lys Ala Pro Gly Ala Ser Gly Cys Leu Leu Pro Arg Asp Gly Leu Pro
485     490     495
Ser Thr Ser Ala Ser Ala Ala Ala Ala Gly Ala Ala Pro Ala Leu Tyr
500     505     510
Pro Ala Leu Gly Leu Asn Gly Leu Pro Gln Leu Gly Tyr Gln Ala Ala
515     520     525
Val Leu Lys Glu Gly Leu Pro Gln Val Tyr Pro Pro Tyr Leu Asn Tyr

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530 535 540
 Leu Arg Pro Asp Ser Glu Ala Ser Gln Ser Pro Gln Tyr Ser Phe Glu
 545 550 555 560
 Ser Leu Pro Gln Lys Ile Cys Leu Ile Cys Gly Asp Glu Ala Ser Gly
 565 570 575
 Cys His Tyr Gly Val Leu Thr Cys Gly Ser Cys Lys Val Phe Phe Lys
 580 585 590
 Arg Ala Met Glu Gly Gln His Asn Tyr Leu Cys Ala Gly Arg Asn Asp
 595 600 605
 Cys Ile Val Asp Lys Ile Arg Arg Lys Asn Cys Pro Ala Cys Arg Leu
 610 615 620
 Arg Lys Cys Cys Gln Ala Gly Met Val Leu Gly Gly Arg Lys Phe Lys
 625 630 635 640
 Lys Phe Asn Lys Val Arg Val Val Arg Ala Leu Asp Ala Val Ala Leu
 645 650 655
 Pro Gln Pro Leu Gly Val Pro Asn Glu Ser Gln Ala Leu Ser Gln Arg
 660 665 670
 Phe Thr Phe Ser Pro Gly Gln Asp Ile Gln Leu Ile Pro Pro Leu Ile
 675 680 685
 Asn Leu Leu Met Ser Ile Glu Pro Asp Val Ile Tyr Ala Gly His Asp
 690 695 700
 Asn Thr Lys Pro Asp Thr Ser Ser Ser Leu Leu Thr Ser Leu Asn Gln
 705 710 715 720
 Leu Gly Glu Arg Gln Leu Leu Ser Val Val Lys Trp Ser Lys Ser Leu
 725 730 735
 Pro Gly Phe Arg Asn Leu His Ile Asp Asp Gln Ile Thr Leu Ile Gln
 740 745 750
 Tyr Ser Trp Met Ser Leu Met Val Phe Gly Leu Gly Trp Arg Ser Tyr
 755 760 765
 Lys His Val Ser Gly Gln Met Leu Tyr Phe Ala Pro Asp Leu Ile Leu
 770 775 780
 Asn Glu Gln Arg Met Lys Glu Ser Ser Phe Tyr Ser Leu Cys Leu Thr
 785 790 795 800
 Met Trp Gln Ile Pro Gln Glu Phe Val Lys Leu Gln Val Ser Gln Glu
 805 810 815
 Glu Phe Leu Cys Met Lys Val Leu Leu Leu Asn Thr Ile Pro Leu
 820 825 830
 Glu Gly Leu Arg Ser Gln Thr Gln Phe Glu Glu Met Arg Ser Ser Tyr
 835 840 845
 Ile Arg Glu Leu Ile Lys Ala Ile Gly Leu Arg Gln Lys Gly Val Val
 850 855 860
 Ser Ser Ser Gln Arg Phe Tyr Gln Leu Thr Lys Leu Leu Asp Asn Leu
 865 870 875 880
 His Asp Leu Val Lys Gln Leu His Leu Tyr Cys Leu Asn Thr Phe Ile
 885 890 895
 Gln Ser Arg Ala Leu Ser Val Glu Phe Pro Glu Met Met Ser Glu Val
 900 905 910
 Ile Ala Ala Gln Leu Pro Lys Ile Leu Ala Gly Met Val Lys Pro Leu
 915 920 925
 Leu Phe His Lys Lys
 930

<210> 231

<211> 186

<212> PRT

<213> Homo sapiens

<400> 231

Met Asp Ala Asp Ser Asp Val Ala Leu Asp Ile Leu Ile Thr Asn Val
 1 5 10 15
 Val Cys Val Phe Arg Thr Arg Cys His Leu Asn Leu Arg Lys Ile Ala
 20 25 30
 Leu Glu Gly Ala Asn Val Ile Tyr Lys Arg Asp Val Gly Lys Val Leu
 35 40 45
 Met Lys Leu Arg Lys Pro Arg Ile Thr Ala Thr Ile Trp Ser Ser Gly
 50 55 60
 Lys Ile Ile Cys Thr Gly Ala Thr Ser Glu Glu Ala Lys Phe Gly
 65 70 75 80
 Ala Arg Arg Leu Ala Arg Ser Leu Gln Lys Leu Gly Phe Gln Val Ile
 85 90 95

Phe Thr Asp Phe Lys Val Val Asn Val Leu Ala Val Cys Asn Met Pro
 100 105 110
 Phe Glu Ile Arg Leu Pro Glu Phe Thr Lys Asn Asn Arg Pro His Ala
 115 120 125
 Ser Tyr Glu Pro Glu Leu His Pro Ala Val Cys Tyr Arg Ile Lys Ser
 130 135 140
 Leu Arg Ala Thr Leu Gln Ile Phe Ser Thr Gly Ser Ile Thr Val Thr
 145 150 155 160
 Gly Pro Asn Val Lys Ala Val Ala Thr Ala Val Glu Gln Ile Tyr Pro
 165 170 175
 Phe Val Phe Glu Ser Arg Lys Glu Ile Leu
 180 185

<210> 232
 <211> 1744
 <212> PRT
 <213> Homo sapiens
 <400> 232

Met Arg Leu Leu Trp Gly Leu Ile Trp Ala Ser Ser Phe Phe Thr Leu
 1 5 10 15
 Ser Leu Gln Lys Pro Arg Leu Leu Leu Phe Ser Pro Ser Val Val His
 20 25 30
 Leu Gly Val Pro Leu Ser Val Gly Val Gln Leu Gln Asp Val Pro Arg
 35 40 45
 Gly Gln Val Val Lys Gly Ser Val Phe Leu Arg Asn Pro Ser Arg Asn
 50 55 60
 Asn Val Pro Cys Ser Pro Lys Val Asp Phe Thr Leu Ser Ser Glu Arg
 65 70 75 80
 Asp Phe Ala Leu Leu Ser Leu Gln Val Pro Leu Lys Asp Ala Lys Ser
 85 90 95
 Cys Gly Leu His Gln Leu Leu Arg Gly Pro Glu Val Gln Leu Val Ala
 100 105 110
 His Ser Pro Trp Leu Lys Asp Ser Leu Ser Arg Thr Thr Asn Ile Gln
 115 120 125
 Gly Ile Asn Leu Leu Phe Ser Ser Arg Arg Gly His Leu Phe Leu Gln
 130 135 140
 Thr Asp Gln Pro Ile Tyr Asn Pro Gly Gln Arg Val Arg Tyr Arg Val
 145 150 155 160
 Phe Ala Leu Asp Gln Lys Met Arg Pro Ser Thr Asp Thr Ile Thr Val
 165 170 175
 Met Val Glu Asn Ser His Gly Leu Arg Val Arg Lys Lys Glu Val Tyr
 180 185 190
 Met Pro Ser Ser Ile Phe Gln Asp Asp Phe Val Ile Pro Asp Ile Ser
 195 200 205
 Glu Pro Gly Thr Trp Lys Ile Ser Ala Arg Phe Ser Asp Gly Leu Glu
 210 215 220
 Ser Asn Ser Ser Thr Gln Phe Glu Val Lys Lys Tyr Val Leu Pro Asn
 225 230 235 240
 Phe Glu Val Lys Ile Thr Pro Gly Lys Pro Tyr Ile Leu Thr Val Pro
 245 250 255
 Gly His Leu Asp Glu Met Gln Leu Asp Ile Gln Ala Arg Tyr Ile Tyr
 260 265 270
 Gly Lys Pro Val Gln Gly Val Ala Tyr Val Arg Phe Gly Leu Leu Asp
 275 280 285
 Glu Asp Gly Lys Lys Thr Phe Phe Arg Gly Leu Glu Ser Gln Thr Lys
 290 295 300
 Leu Val Asn Gly Gln Ser His Ile Ser Leu Ser Lys Ala Glu Phe Gln
 305 310 315 320
 Asp Ala Leu Glu Lys Leu Asn Met Gly Ile Thr Asp Leu Gln Gly Leu
 325 330 335
 Arg Leu Tyr Val Ala Ala Ala Ile Ile Glu Tyr Pro Gly Gly Glu Met
 340 345 350
 Glu Glu Ala Glu Leu Thr Ser Trp Tyr Phe Val Ser Ser Pro Phe Ser
 355 360 365
 Leu Asp Leu Ser Lys Thr Lys Arg His Leu Val Pro Gly Ala Pro Phe
 370 375 380
 Leu Leu Gln Ala Leu Val Arg Glu Met Ser Gly Ser Pro Ala Ser Gly
 385 390 395 400
 Ile Pro Val Lys Val Ser Ala Thr Val Ser Ser Pro Gly Ser Val Pro

- 260 -

Pro Gly Asn Ser Asp Pro Asn Met Ile Pro Asp Gly Asp Phe Asn Ser
 965 970 975
 Tyr Val Arg Val Thr Ala Ser Asp Pro Leu Asp Thr Leu Gly Ser Glu
 980 985 990
 Gly Ala Leu Ser Pro Gly Gly Val Ala Ser Leu Leu Arg Leu Pro Arg
 995 1000 1005
 Gly Cys Gly Glu Gln Thr Met Ile Tyr Leu Ala Pro Thr Leu Ala
 1010 1015 1020
 Ala Ser Arg Tyr Leu Asp Lys Thr Glu Gln Trp Ser Thr Leu Pro
 1025 1030 1035
 Pro Glu Thr Lys Asp His Ala Val Asp Leu Ile Gln Lys Gly Tyr
 1040 1045 1050
 Met Arg Ile Gln Gln Phe Arg Lys Ala Asp Gly Ser Tyr Ala Ala
 1055 1060 1065
 Trp Leu Ser Arg Gly Ser Ser Thr Trp Leu Thr Ala Phe Val Leu
 1070 1075 1080
 Lys Val Leu Ser Leu Ala Gln Glu Gln Val Gly Gly Ser Pro Glu
 1085 1090 1095
 Lys Leu Gln Glu Thr Ser Asn Trp Leu Leu Ser Gln Gln Gln Ala
 1100 1105 1110
 Asp Gly Ser Phe Gln Asp Leu Ser Pro Val Ile His Arg Ser Met
 1115 1120 1125
 Gln Gly Gly Leu Val Gly Asn Asp Glu Thr Val Ala Leu Thr Ala
 1130 1135 1140
 Phe Val Thr Ile Ala Leu His His Gly Leu Ala Val Phe Gln Asp
 1145 1150 1155
 Glu Gly Ala Glu Pro Leu Lys Gln Arg Val Glu Ala Ser Ile Ser
 1160 1165 1170
 Lys Ala Ser Ser Phe Leu Gly Glu Lys Ala Ser Ala Gly Leu Leu
 1175 1180 1185
 Gly Ala His Ala Ala Ala Ile Thr Ala Tyr Ala Leu Thr Leu Thr
 1190 1195 1200
 Lys Ala Pro Ala Asp Leu Arg Gly Val Ala His Asn Asn Leu Met
 1205 1210 1215
 Ala Met Ala Gln Glu Thr Gly Asp Asn Leu Tyr Trp Gly Ser Val
 1220 1225 1230
 Thr Gly Ser Gln Ser Asn Ala Val Ser Pro Thr Pro Ala Pro Arg
 1235 1240 1245
 Asn Pro Ser Asp Pro Met Pro Gln Ala Pro Ala Leu Trp Ile Glu
 1250 1255 1260
 Thr Thr Ala Tyr Ala Leu Leu His Leu Leu Leu His Glu Gly Lys
 1265 1270 1275
 Ala Glu Met Ala Asp Gln Ala Ala Ala Trp Leu Thr Arg Gln Gly
 1280 1285 1290
 Ser Phe Gln Gly Gly Phe Arg Ser Thr Gln Asp Thr Val Ile Ala
 1295 1300 1305
 Leu Asp Ala Leu Ser Ala Tyr Trp Ile Ala Ser His Thr Thr Glu
 1310 1315 1320
 Glu Arg Gly Leu Asn Val Thr Leu Ser Ser Thr Gly Arg Asn Gly
 1325 1330 1335
 Phe Lys Ser His Ala Leu Gln Leu Asn Asn Arg Gln Ile Arg Gly
 1340 1345 1350
 Leu Glu Glu Glu Leu Gln Phe Ser Leu Gly Ser Lys Ile Asn Val
 1355 1360 1365
 Lys Val Gly Gly Asn Ser Lys Gly Thr Leu Lys Val Leu Arg Thr
 1370 1375 1380
 Tyr Asn Val Leu Asp Met Lys Asn Thr Thr Cys Gln Asp Leu Gln
 1385 1390 1395
 Ile Glu Val Thr Val Lys Gly His Val Glu Tyr Thr Met Glu Ala
 1400 1405 1410
 Asn Glu Asp Tyr Glu Asp Tyr Glu Tyr Asp Glu Leu Pro Ala Lys
 1415 1420 1425
 Asp Asp Pro Asp Ala Pro Leu Gln Pro Val Thr Pro Leu Gln Leu
 1430 1435 1440
 Phe Glu Gly Arg Arg Asn Arg Arg Arg Arg Glu Ala Pro Lys Val
 1445 1450 1455
 Val Glu Glu Gln Glu Ser Arg Val His Tyr Thr Val Cys Ile Trp
 1460 1465 1470
 Arg Asn Gly Lys Val Gly Leu Ser Gly Met Ala Ile Ala Asp Val

1475	1480	1485
Thr Leu Leu Ser Gly Phe	His Ala Leu Arg Ala	Asp Leu Glu Lys
1490	1495	1500
Leu Thr Ser Leu Ser Asp	Arg Tyr Val Ser His	Phe Glu Thr Glu
1505	1510	1515
Gly Pro His Val Leu Leu	Tyr Phe Asp Ser Val	Pro Thr Ser Arg
1520	1525	1530
Glu Cys Val Gly Phe Glu	Ala Val Gln Glu Val	Pro Val Gly Leu
1535	1540	1545
Val Gln Pro Ala Ser Ala	Thr Leu Tyr Asp Tyr	Tyr Asn Pro Glu
1550	1555	1560
Arg Arg Cys Ser Val Phe	Tyr Gly Ala Pro Ser	Lys Ser Arg Leu
1565	1570	1575
Leu Ala Thr Leu Cys Ser	Ala Glu Val Cys Gln	Cys Ala Glu Gly
1580	1585	1590
Lys Cys Pro Arg Gln Arg	Arg Ala Leu Glu Arg	Gly Leu Gln Asp
1595	1600	1605
Glu Asp Gly Tyr Arg Met	Lys Phe Ala Cys Tyr	Tyr Pro Arg Val
1610	1615	1620
Glu Tyr Gly Phe Gln Val	Lys Val Leu Arg Glu	Asp Ser Arg Ala
1625	1630	1635
Ala Phe Arg Leu Phe Glu	Thr Lys Ile Thr Gln	Val Leu His Phe
1640	1645	1650
Thr Lys Asp Val Lys Ala	Ala Ala Asn Gln Met	Arg Asn Phe Leu
1655	1660	1665
Val Arg Ala Ser Cys Arg	Leu Arg Leu Glu Pro	Gly Lys Glu Tyr
1670	1675	1680
Leu Ile Met Gly Leu Asp	Gly Ala Thr Tyr Asp	Leu Glu Gly His
1685	1690	1695
Pro Gln Tyr Leu Leu Asp	Ser Asn Ser Trp Ile	Glu Glu Met Pro
1700	1705	1710
Ser Glu Arg Leu Cys Arg	Ser Thr Arg Gln Arg	Ala Ala Cys Ala
1715	1720	1725
Gln Leu Asn Asp Phe Leu	Gln Glu Tyr Gly Thr	Gln Gly Cys Gln
1730	1735	1740
Val		

<210> 233

<211> 295

<212> PRT

<213> Homo sapiens

<400> 233

Met Ile Glu Val Leu Thr Thr Thr Asp Ser Gln Lys Leu Leu His Gln	
1	5 10 15
Leu Asn Ala Leu Leu Glu Gln Glu Ser Arg Cys Gln Pro Lys Val Cys	
	20 25 30
Gly Leu Arg Leu Ile Glu Ser Ala His Asp Asn Gly Leu Arg Met Thr	
	35 40 45
Ala Arg Leu Arg Asp Phe Glu Val Lys Asp Leu Leu Ser Leu Thr Gln	
	50 55 60
Phe Phe Gly Phe Asp Thr Glu Thr Phe Ser Leu Ala Val Asn Leu Leu	
65	70 75 80
Asp Arg Phe Leu Ser Lys Met Lys Val Gln Pro Lys His Leu Gly Cys	
	85 90 95
Val Gly Leu Ser Cys Phe Tyr Leu Ala Val Lys Ser Ile Glu Glu Glu	
	100 105 110
Arg Asn Val Pro Leu Ala Thr Asp Leu Ile Arg Ile Ser Gln Tyr Arg	
	115 120 125
Phe Thr Val Ser Asp Leu Met Arg Met Glu Lys Ile Val Leu Glu Lys	
	130 135 140
Val Cys Trp Lys Val Lys Ala Thr Thr Ala Phe Gln Phe Leu Gln Leu	
145	150 155 160
Tyr Tyr Ser Leu Leu Gln Glu Asn Leu Pro Leu Glu Arg Arg Asn Ser	
	165 170 175
Ile Asn Phe Glu Arg Leu Glu Ala Gln Leu Lys Ala Cys His Cys Arg	
	180 185 190
Ile Ile Phe Ser Lys Ala Lys Pro Ser Val Leu Ala Leu Ser Ile Ile	
	195 200 205

Ala Leu Glu Ile Gln Ala Gln Lys Cys Val Glu Leu Thr Glu Gly Ile
 210 215 220
 Glu Cys Leu Gln Lys His Ser Lys Ile Asn Gly Arg Asp Leu Thr Phe
 225 230 235 240
 Trp Gln Glu Leu Val Ser Lys Cys Leu Thr Glu Tyr Ser Ser Asn Lys
 245 250 255
 Cys Ser Lys Pro Asn Val Gln Lys Leu Lys Trp Ile Val Ser Gly Arg
 260 265 270
 Thr Ala Arg Gln Leu Lys His Ser Tyr Tyr Arg Ile Thr His Leu Pro
 275 280 285
 Thr Ile Pro Glu Met Val Pro
 290 295

<210> 234
 <211> 359
 <212> PRT
 <213> Homo sapiens
 <400> 234

Met Ala Ala Val Ser Gly Leu Val Arg Arg Pro Leu Arg Glu Val Ser
 1 5 10 15
 Gly Leu Leu Lys Arg Arg Phe His Trp Thr Ala Pro Ala Ala Leu Gln
 20 25 30
 Val Thr Val Arg Asp Ala Ile Asn Gln Gly Met Asp Glu Leu Glu
 35 40 45
 Arg Asp Glu Lys Val Phe Leu Leu Gly Glu Glu Val Ala Gln Tyr Asp
 50 55 60
 Gly Ala Tyr Lys Val Ser Arg Gly Leu Trp Lys Lys Tyr Gly Asp Lys
 65 70 75 80
 Arg Ile Ile Asp Thr Pro Ile Ser Glu Met Gly Phe Ala Gly Ile Ala
 85 90 95
 Val Gly Ala Ala Met Ala Gly Leu Arg Pro Ile Cys Glu Phe Met Thr
 100 105 110
 Phe Asn Phe Ser Met Gln Ala Ile Asp Gln Val Ile Asn Ser Ala Ala
 115 120 125
 Lys Thr Tyr Tyr Met Ser Gly Gly Leu Gln Pro Val Pro Ile Val Phe
 130 135 140
 Arg Gly Pro Asn Gly Ala Ser Ala Gly Val Ala Gln His Ser Gln
 145 150 155 160
 Cys Phe Ala Ala Trp Tyr Gly His Cys Pro Gly Leu Lys Val Val Ser
 165 170 175
 Pro Trp Asn Ser Glu Asp Ala Lys Gly Leu Ile Lys Ser Ala Ile Arg
 180 185 190
 Asp Asn Asn Pro Val Val Val Leu Glu Asn Glu Leu Met Tyr Gly Val
 195 200 205
 Pro Phe Glu Phe Leu Pro Glu Ala Gln Ser Lys Asp Phe Leu Ile Pro
 210 215 220
 Ile Gly Lys Ala Lys Ile Glu Arg Gln Gly Thr His Ile Thr Val Val
 225 230 235 240
 Ser His Ser Arg Pro Val Gly His Cys Leu Glu Ala Ala Ala Val Leu
 245 250 255
 Ser Lys Glu Gly Val Glu Cys Glu Val Ile Asn Met Arg Thr Ile Arg
 260 265 270
 Pro Met Asp Met Glu Thr Ile Glu Ala Ser Val Met Lys Thr Asn His
 275 280 285
 Leu Val Thr Val Glu Gly Gly Trp Pro Gln Phe Gly Val Gly Ala Glu
 290 295 300
 Ile Cys Ala Arg Ile Met Glu Gly Pro Ala Phe Asn Phe Leu Asp Ala
 305 310 315 320
 Pro Ala Val Arg Val Thr Gly Ala Asp Val Pro Met Pro Tyr Ala Lys
 325 330 335
 Ile Leu Glu Asp Asn Ser Ile Pro Gln Val Lys Asp Ile Ile Phe Ala
 340 345 350
 Ile Lys Lys Thr Leu Asn Ile
 355

<210> 235
 <211> 420
 <212> PRT
 <213> Homo sapiens

<400> 235

```

Met Glu Val Pro Pro Arg Leu Ser His Val Pro Pro Pro Leu Phe Pro
1      5      10
Ser Ala Pro Ala Thr Leu Ala Ser Arg Ser Leu Ser His Trp Arg Pro
20      25      30
Arg Pro Pro Arg Gln Leu Ala Pro Leu Leu Pro Ser Leu Ala Pro Ser
35      40      45
Ser Ala Arg Gln Gly Ala Arg Arg Ala Gln Arg His Val Thr Ala Gln
50      55      60
Gln Pro Ser Arg Leu Ala Gly Gly Ala Ala Ile Lys Gly Gly Arg Arg
65      70      75      80
Arg Arg Pro Asp Leu Phe Arg Arg His Phe Lys Ser Ser Ser Ile Gln
85      90      95
Arg Ser Ala Ala Ala Ala Ala Thr Arg Thr Ala Arg Gln His Pro
100     105     110
Pro Ala Asp Ser Ser Val Thr Met Glu Asp Met Asn Glu Tyr Ser Asn
115     120     125
Ile Glu Glu Phe Ala Glu Gly Ser Lys Ile Asn Ala Ser Lys Asn Gln
130     135     140
Gln Asp Asp Gly Lys Met Phe Ile Gly Gly Leu Ser Trp Asp Thr Ser
145     150     155     160
Lys Lys Asp Leu Thr Glu Tyr Leu Ser Arg Phe Gly Glu Val Val Asp
165     170     175
Cys Thr Ile Lys Thr Asp Pro Val Thr Gly Arg Ser Arg Gly Phe Gly
180     185     190
Phe Val Leu Phe Lys Asp Ala Ala Ser Val Asp Lys Val Leu Glu Leu
195     200     205
Lys Glu His Lys Leu Asp Gly Lys Leu Ile Asp Pro Lys Arg Ala Lys
210     215     220
Ala Leu Lys Gly Lys Glu Pro Pro Lys Lys Val Phe Val Gly Gly Leu
225     230     235     240
Ser Pro Asp Thr Ser Glu Glu Gln Ile Lys Glu Tyr Phe Gly Ala Phe
245     250     255
Gly Glu Ile Glu Asn Ile Glu Leu Pro Met Asp Thr Lys Thr Asn Glu
260     265     270
Arg Arg Gly Phe Cys Phe Ile Thr Tyr Thr Asp Glu Glu Pro Val Lys
275     280     285
Lys Leu Leu Glu Ser Arg Tyr His Gln Ile Gly Ser Gly Lys Cys Glu
290     295     300
Ile Lys Val Ala Gln Pro Lys Glu Val Tyr Arg Gln Gln Gln Gln Gln
305     310     315     320
Gln Lys Gly Gly Arg Gly Ala Ala Ala Gly Gly Arg Gly Gly Thr Arg
325     330     335
Gly Arg Gly Arg Gly Gln Gly Gln Asn Trp Asn Gln Gly Phe Asn Asn
340     345     350
Tyr Tyr Asp Gln Gly Tyr Gly Asn Tyr Asn Ser Ala Tyr Gly Gly Asp
355     360     365
Gln Asn Tyr Ser Gly Tyr Gly Gly Tyr Asp Tyr Thr Gly Tyr Asn Tyr
370     375     380
Gly Asn Tyr Gly Tyr Gly Gln Gly Tyr Ala Asp Tyr Ser Gly Gln Gln
385     390     395     400
Ser Thr Tyr Gly Lys Ala Ser Arg Gly Gly Gly Asn His Gln Asn Asn
405     410     415
Tyr Gln Pro Tyr
420

```

<210> 236

<211> 211

<212> PRT

<213> Homo sapiens

<400> 236

```

Met Asp Asp Ala His Glu Ser Pro Ser Asp Lys Gly Gly Glu Thr Gly
1      5      10      15
Glu Ser Asp Glu Thr Ala Ala Val Pro Gly Asp Pro Gly Ala Thr Asp
20      25      30
Thr Asp Gly Ile Pro Glu Glu Thr Asp Gly Asp Ala Asp Val Asp Leu
35      40      45
Lys Glu Ala Ala Ala Glu Glu Gly Glu Leu Glu Ser Gln Asp Val Ser
50      55      60

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Asp Leu Thr Thr Val Glu Arg Glu Asp Ser Ser Leu Leu Asn Pro Ala
65      70      75      80
Ala Lys Lys Leu Lys Ile Asp Thr Lys Glu Lys Lys Glu Lys Lys Gln
      85      90      95
Lys Val Asp Glu Asp Glu Ile Gln Lys Met Gln Ile Leu Val Ser Ser
      100      105      110
Phe Ser Glu Glu Gln Leu Asn Arg Tyr Glu Met Tyr Arg Arg Ser Ala
      115      120      125
Phe Pro Lys Ala Ala Ile Lys Arg Leu Ile Gln Ser Ile Thr Gly Thr
      130      135      140
Ser Val Ser Gln Asn Val Val Ile Ala Met Ser Gly Ile Ser Lys Val
145      150      155      160
Phe Val Gly Glu Val Val Glu Glu Ala Leu Asp Val Cys Glu Lys Trp
      165      170      175
Gly Glu Met Pro Pro Leu Gln Pro Lys His Met Arg Glu Ala Val Arg
      180      185      190
Arg Leu Lys Ser Lys Gly Gln Ile Pro Asn Ser Lys His Lys Lys Ile
      195      200      205
Ile Phe Phe
      210

```

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<210> 237
<211> 382
<212> PRT
<213> Homo sapiens
<220>
<221> misc_feature
<222> (19)..(19)
<223> X = A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, or Y
<400> 237

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```

Met Ala Leu Gln Gly Ile Ser Val Val Glu Leu Ser Gly Leu Ala Pro
1      5      10      15
Gly Arg Xaa Cys Ala Met Val Leu Ala Asp Phe Gly Ala Arg Val Val
      20      25      30
Arg Val Asp Arg Pro Gly Ser Arg Tyr Asp Val Ser Arg Leu Gly Arg
      35      40      45
Gly Lys Arg Ser Leu Val Leu Asp Leu Lys Gln Pro Arg Glu Pro Arg
      50      55      60
Ala Ala Ala Ser Val Gln Ala Val Gly Cys Ala Ala Gly Ala Leu Pro
65      70      75      80
Pro Arg Cys His Gly Glu Thr Pro Ala Gly Pro Arg Asp Ser Ala Ala
      85      90      95
Gly Lys Ser Lys Ala Tyr Leu Cys Gln Ala Glu Trp Ile Trp Pro Val
      100      105      110
Gln Glu Ser Phe Cys Arg Leu Ala Gly His Asp Ile Asn Tyr Leu Ala
      115      120      125
Leu Ser Gly Val Leu Ser Lys Ile Gly Arg Ser Gly Glu Asn Pro Tyr
      130      135      140
Ala Pro Leu Asn Leu Val Ala Asp Phe Ala Gly Gly Leu Met Cys
145      150      155      160
Ala Leu Gly Ile Ile Met Ala Leu Phe Asp Arg Thr Arg Thr Asp Lys
      165      170      175
Gly Gln Val Ile Asp Ala Asn Met Val Glu Gly Thr Ala Tyr Leu Ser
      180      185      190
Ser Phe Leu Trp Lys Thr Gln Lys Ser Ser Leu Trp Glu Ala Pro Arg
      195      200      205
Gly Gln Asn Met Leu Asp Gly Gly Ala Pro Phe Tyr Thr Thr Tyr Arg
      210      215      220
Thr Ala Asp Gly Glu Phe Met Ala Val Gly Ala Ile Glu Pro Gln Phe
225      230      235      240
Tyr Glu Leu Leu Ile Lys Gly Leu Gly Leu Lys Ser Asp Glu Leu Pro
      245      250      255
Asn Gln Met Ser Thr Asp Asp Trp Pro Glu Met Lys Lys Lys Phe Ala
      260      265      270
Asp Val Phe Ala Lys Lys Thr Lys Ala Glu Trp Cys Gln Ile Phe Asp
      275      280      285
Gly Thr Asp Ala Cys Val Thr Pro Val Leu Thr Phe Glu Glu Val Val
      290      295      300
His His Asp His Asn Lys Glu Arg Gly Ser Phe Ile Thr Ser Glu Glu

```

```

305          310          315          320
Gln Asp Val Ser Pro Arg Leu Ala Pro Leu Leu Asn Thr Pro Ala
325          330
Ile Pro Ser Ser Lys Gly Asp Pro Phe Ile Gly Glu His Thr Glu Glu
340          345          350
Ile Leu Glu Glu Phe Gly Phe Ser Arg Glu Glu Ile Tyr Gln Leu Asn
355          360          365
Ser Asp Lys Ile Ile Glu Ser Asn Lys Val Lys Ala Ser Leu
370          375          380

```

```

<210> 238
<211> 254
<212> PRT
<213> Homo sapiens
<400> 238

```

```

Met Asp Asn Tyr Ala Asp Leu Ser Asp Thr Glu Leu Thr Thr Leu Leu
1      5      10
Arg Arg Tyr Asn Ile Pro His Gly Pro Val Val Gly Ser Thr Arg Arg
20     25     30
Leu Tyr Glu Lys Lys Ile Phe Glu Tyr Glu Thr Gln Arg Arg Arg Leu
35     40     45
Ser Pro Pro Ser Ser Ser Ala Ala Ser Ser Tyr Ser Phe Ser Asp Leu
50     55     60
Asn Ser Thr Arg Gly Asp Ala Asp Met Tyr Asp Leu Pro Lys Lys Glu
65     70     75     80
Asp Ala Leu Leu Tyr Gln Ser Lys Gly Tyr Asn Asp Asp Tyr Tyr Glu
85     90     95
Glu Ser Tyr Phe Thr Thr Arg Thr Tyr Gly Glu Pro Glu Ser Ala Gly
100    105    110
Pro Ser Arg Ala Val Arg Gln Ser Val Thr Ser Phe Pro Asp Ala Asp
115    120    125
Ala Phe His His Gln Val His Asp Asp Asp Leu Leu Ser Ser Ser Glu
130    135    140
Glu Glu Cys Lys Asp Arg Glu Arg Pro Met Tyr Gly Arg Asp Ser Ala
145    150    155    160
Tyr Gln Ser Ile Thr His Tyr Arg Pro Val Ser Ala Ser Arg Ser Ser
165    170    175
Leu Asp Leu Ser Tyr Tyr Pro Thr Ser Ser Ser Thr Ser Phe Met Ser
180    185    190
Ser Ser Ser Ser Ser Ser Ser Trp Leu Thr Arg Arg Ala Ile Arg Pro
195    200    205
Glu Asn Arg Ala Pro Gly Ala Gly Leu Gly Gln Asp Arg Gln Val Pro
210    215    220
Leu Trp Gly Gln Leu Leu Phe Leu Val Phe Val Ile Val Leu Phe
225    230    235    240
Phe Ile Tyr His Phe Met Gln Ala Glu Glu Gly Asn Pro Phe
245    250

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<210> 239
<211> 423
<212> PRT
<213> Homo sapiens
<400> 239

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Met Ala Met Val Val Ser Ser Trp Arg Asp Pro Gln Asp Asp Val Ala
1      5      10
Gly Gly Asn Pro Gly Gly Pro Asn Pro Ala Ala Gln Ala Ala Arg Gly
20     25     30
Gly Gly Gly Gly Ala Gly Glu Gln Gln Gln Gln Ala Gly Ser Gly Ala
35     40     45
Pro His Thr Pro Gln Thr Pro Gly Gln Pro Gly Ala Pro Ala Thr Pro
50     55     60
Gly Thr Ala Gly Asp Lys Gly Gln Gly Pro Pro Gly Ser Gly Gln Ser
65     70     75     80
Gln Gln His Ile Glu Cys Val Val Cys Gly Asp Lys Ser Ser Gly Lys
85     90     95
His Tyr Gly Gln Phe Thr Cys Glu Gly Cys Lys Ser Phe Phe Lys Arg
100    105    110
Ser Val Arg Arg Asn Leu Thr Tyr Thr Cys Arg Ala Asn Arg Asn Cys
115    120    125

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Pro Ile Asp Gln His His Arg Asn Gln Cys Gln Tyr Cys Arg Leu Lys
 130 135 140
 Lys Cys Leu Lys Val Gly Met Arg Arg Glu Ala Val Gln Arg Gly Arg
 145 150 155 160
 Met Pro Pro Thr Gln Pro Asn Pro Gly Gln Tyr Ala Leu Thr Asn Gly
 165 170 175
 Asp Pro Leu Asn Gly His Cys Tyr Leu Ser Gly Tyr Ile Ser Leu Leu
 180 185 190
 Leu Arg Ala Glu Pro Tyr Pro Thr Ser Arg Tyr Gly Ser Gln Cys Met
 195 200 205
 Gln Pro Asn Asn Ile Met Gly Ile Glu Asn Ile Cys Glu Leu Ala Ala
 210 215 220
 Arg Leu Leu Phe Ser Ala Val Glu Trp Ala Arg Asn Ile Pro Phe Phe
 225 230 235 240
 Pro Asp Leu Gln Ile Thr Asp Gln Val Ser Leu Leu Arg Leu Thr Trp
 245 250 255
 Ser Glu Leu Phe Val Leu Asn Ala Ala Gln Cys Ser Met Pro Leu His
 260 265 270
 Val Ala Pro Leu Leu Ala Ala Ala Gly Leu His Ala Ser Pro Met Ser
 275 280 285
 Ala Asp Arg Val Val Ala Phe Met Asp His Ile Arg Ile Phe Gln Glu
 290 295 300
 Gln Val Glu Lys Leu Lys Ala Leu His Val Asp Ser Ala Glu Tyr Ser
 305 310 315 320
 Cys Leu Lys Ala Ile Val Leu Phe Thr Ser Asp Ala Cys Gly Leu Ser
 325 330 335
 Asp Ala Ala His Ile Glu Ser Leu Gln Glu Lys Ser Gln Cys Ala Leu
 340 345 350
 Glu Glu Tyr Val Arg Ser Gln Tyr Pro Asn Gln Pro Ser Arg Phe Gly
 355 360 365
 Lys Leu Leu Leu Arg Leu Pro Ser Leu Arg Thr Val Ser Ser Ser Val
 370 375 380
 Ile Glu Gln Leu Phe Phe Val Arg Leu Val Gly Lys Thr Pro Ile Glu
 385 390 395 400
 Thr Leu Ile Arg Asp Met Leu Leu Ser Gly Ser Ser Phe Asn Trp Pro
 405 410 415
 Tyr Met Ser Ile Gln Cys Ser
 420

<210> 240

<211> 536

<212> PRT

<213> Homo sapiens

<400> 240

Met Lys Gln Ser Ser Asn Val Pro Ala Phe Leu Ser Lys Leu Trp Thr
 1 5 10 15
 Leu Val Glu Glu Thr His Thr Asn Glu Phe Ile Thr Trp Ser Gln Asn
 20 25 30
 Gly Gln Ser Phe Leu Val Leu Asp Glu Gln Arg Phe Ala Lys Glu Ile
 35 40 45
 Leu Pro Lys Tyr Phe Lys His Asn Asn Met Ala Ser Phe Val Arg Gln
 50 55 60
 Leu Asn Met Tyr Gly Phe Arg Lys Val Val His Ile Asp Ser Gly Ile
 65 70 75 80
 Val Lys Gln Glu Arg Asp Gly Pro Val Glu Phe Gln His Pro Tyr Phe
 85 90 95
 Lys Gln Gly Gln Asp Asp Leu Leu Glu Asn Ile Lys Arg Lys Val Ser
 100 105 110
 Ser Ser Lys Pro Glu Glu Asn Lys Ile Arg Gln Glu Asp Leu Thr Lys
 115 120 125
 Ile Ile Ser Ser Ala Gln Lys Val Gln Ile Lys Gln Glu Thr Ile Glu
 130 135 140
 Ser Arg Leu Ser Glu Leu Lys Ser Glu Asn Glu Ser Leu Trp Lys Glu
 145 150 155 160
 Val Ser Glu Leu Arg Ala Lys His Ala Gln Gln Gln Gln Val Ile Arg
 165 170 175
 Lys Ile Val Gln Phe Ile Val Thr Leu Val Gln Asn Asn Gln Leu Val
 180 185 190
 Ser Leu Lys Arg Lys Arg Pro Leu Leu Leu Asn Thr Asn Gly Ala Gln


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<210> 241
<211> 616
<212> PRT
<213> Homo sapiens
<400> 241
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- 268 -

Ala Val Ile Val Thr Gly Gln Gly Glu Gln Cys Glu Arg Ala Arg Arg
 165 170 175
 Leu Gln Ala Lys Met Met Thr Asn Leu Val Met Ala Lys Asp Arg Leu
 180 185 190
 Gln Leu Leu Glu Lys Met Gln Pro Val Leu Pro Phe Ser Lys Ser Gln
 195 200 205
 Thr Asp Val Tyr Asn Asp Ser Thr Asn Leu Ala Cys Arg Asn Gly His
 210 215 220
 Leu Gln Ser Glu Ser Gly Ala Val Pro Lys Arg Lys Asp Pro Leu Thr
 225 230 235 240
 His Thr Ser Asn Ser Leu Pro Arg Ser Lys Thr Val Met Lys Thr Gly
 245 250 255
 Ser Ala Gly Leu Ser Gly His His Arg Ala Pro Ser Tyr Ser Gly Leu
 260 265 270
 Ser Met Val Ser Gly Val Lys Gln Gly Ser Gly Pro Ala Pro Thr Thr
 275 280 285
 His Lys Gly Thr Pro Lys Thr Asn Arg Thr Asn Lys Pro Ser Thr Pro
 290 295 300
 Thr Thr Ala Thr Arg Lys Lys Lys Asp Leu Lys Asn Phe Arg Asn Val
 305 310 315 320
 Asp Ser Asn Leu Ala Asn Leu Ile Met Asn Glu Ile Val Asp Asn Gly
 325 330 335
 Thr Ala Val Lys Phe Asp Asp Ile Ala Gly Gln Asp Leu Ala Lys Gln
 340 345 350
 Ala Leu Gln Glu Ile Val Ile Leu Pro Ser Leu Arg Pro Glu Leu Phe
 355 360 365
 Thr Gly Leu Arg Ala Pro Ala Arg Gly Leu Leu Leu Phe Gly Pro Pro
 370 375 380
 Gly Asn Gly Lys Thr Met Leu Ala Lys Ala Val Ala Ala Glu Ser Asn
 385 390 395 400
 Ala Thr Phe Phe Asn Ile Ser Ala Ala Ser Leu Thr Ser Lys Tyr Val
 405 410 415
 Gly Glu Gly Glu Lys Leu Val Arg Ala Leu Phe Ala Val Ala Arg Glu
 420 425 430
 Leu Gln Pro Ser Ile Ile Phe Ile Asp Glu Val Asp Ser Leu Leu Cys
 435 440 445
 Glu Arg Arg Glu Gly Glu His Asp Ala Ser Arg Arg Leu Lys Thr Glu
 450 455 460
 Phe Leu Ile Glu Phe Asp Gly Val Gln Ser Ala Gly Asp Asp Arg Val
 465 470 475 480
 Leu Val Met Gly Ala Thr Asn Arg Pro Gln Glu Leu Asp Glu Ala Val
 485 490 495
 Leu Arg Arg Phe Ile Lys Arg Val Tyr Val Ser Leu Pro Asn Glu Glu
 500 505 510
 Thr Arg Leu Leu Leu Leu Lys Asn Leu Leu Cys Lys Gln Gly Ser Pro
 515 520 525
 Leu Thr Gln Lys Glu Leu Ala Gln Leu Ala Arg Met Thr Asp Gly Tyr
 530 535 540
 Ser Gly Ser Asp Leu Thr Ala Leu Ala Lys Asp Ala Ala Leu Gly Pro
 545 550 555 560
 Ile Arg Glu Leu Lys Pro Glu Gln Val Lys Asn Met Ser Ala Ser Glu
 565 570 575
 Met Arg Asn Ile Arg Leu Ser Asp Phe Thr Glu Ser Leu Lys Lys Ile
 580 585 590
 Lys Arg Ser Val Ser Pro Gln Thr Leu Glu Ala Tyr Ile Arg Trp Asn
 595 600 605
 Lys Asp Phe Gly Asp Thr Thr Val
 610 615

<210> 242

<211> 1979

<212> PRT

<213> Homo sapiens

<400> 242

Met Ser Ser Trp Leu Gly Gly Leu Gly Ser Gly Leu Gly Gln Ser Leu
 1 5 10 15
 Gly Gln Val Gly Gly Ser Leu Ala Ser Leu Thr Gly Gln Ile Ser Asn
 20 25 30
 Phe Thr Lys Asp Met Leu Met Glu Gly Thr Glu Glu Val Glu Ala Glu

- 270 -

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Asn Lys Ser Gln Glu Ser Asn Val Ser Ile Gln Lys Glu Asn Leu Glu
595 600 605
Leu Lys Glu His Ile Arg Gln Asn Glu Glu Glu Leu Ser Arg Ile Arg
610 615 620
Asn Glu Leu Met Gln Ser Leu Asn Gln Asp Ser Asn Ser Asn Phe Lys
625 630 635 640
Asp Thr Leu Leu Lys Glu Arg Glu Ala Glu Val Arg Asn Leu Lys Gln
645 650 655
Asn Leu Ser Glu Leu Glu Gln Leu Asn Glu Asn Leu Lys Lys Val Ala
660 665 670
Phe Asp Val Lys Met Glu Asn Glu Lys Leu Val Leu Ala Cys Glu Asp
675 680 685
Val Arg His Gln Leu Glu Glu Cys Leu Ala Gly Asn Asn Gln Leu Ser
690 695 700
Leu Glu Lys Asn Thr Ile Val Glu Thr Leu Lys Met Glu Lys Gly Glu
705 710 715 720
Ile Glu Ala Glu Leu Cys Trp Ala Lys Lys Arg Leu Leu Glu Glu Ala
725 730 735
Asn Lys Tyr Glu Lys Thr Ile Glu Glu Leu Ser Asn Ala Arg Asn Leu
740 745 750
Asn Thr Ser Ala Leu Gln Leu Glu His Glu His Leu Ile Lys Leu Asn
755 760 765
Gln Lys Lys Asp Met Glu Ile Ala Glu Leu Lys Lys Asn Ile Glu Gln
770 775 780
Met Asp Thr Asp His Lys Glu Thr Lys Asp Val Leu Ser Ser Ser Leu
785 790 795 800
Glu Glu Gln Lys Gln Leu Thr Gln Leu Ile Asn Lys Lys Glu Ile Phe
805 810 815
Ile Glu Lys Leu Lys Glu Arg Ser Ser Lys Leu Gln Glu Glu Leu Asp
820 825 830
Lys Tyr Ser Gln Ala Leu Arg Lys Asn Glu Ile Leu Arg Gln Thr Ile
835 840 845
Glu Glu Lys Asp Arg Ser Leu Gly Ser Met Lys Glu Glu Asn Asn His
850 855 860
Leu Gln Glu Glu Leu Glu Arg Leu Arg Glu Glu Gln Ser Arg Thr Ala
865 870 875 880
Pro Val Ala Asp Pro Lys Thr Leu Asp Ser Val Thr Glu Leu Ala Ser
885 890 895
Glu Val Ser Gln Leu Asn Thr Ile Lys Glu His Leu Glu Glu Glu Ile
900 905 910
Lys His His Gln Lys Ile Ile Glu Asp Gln Asn Gln Ser Lys Met Gln
915 920 925
Leu Leu Gln Ser Leu Gln Glu Gln Lys Lys Glu Met Asp Glu Phe Arg
930 935 940
Tyr Gln His Glu Gln Met Asn Ala Thr His Thr Gln Leu Phe Leu Glu
945 950 955 960
Lys Asp Glu Glu Ile Lys Ser Leu Gln Lys Thr Ile Glu Gln Ile Lys
965 970 975
Thr Gln Leu His Glu Glu Arg Gln Asp Ile Gln Thr Asp Asn Ser Asp
980 985 990
Ile Phe Gln Glu Thr Lys Val Gln Ser Leu Asn Ile Glu Asn Gly Ser
995 1000 1005
Glu Lys His Asp Leu Ser Lys Ala Glu Thr Glu Arg Leu Val Lys
1010 1015 1020
Gly Ile Lys Glu Arg Glu Leu Glu Ile Lys Leu Leu Asn Glu Lys
1025 1030 1035
Asn Ile Ser Leu Thr Lys Gln Ile Asp Gln Leu Ser Lys Asp Glu
1040 1045 1050
Val Gly Lys Leu Thr Gln Ile Ile Gln Gln Lys Asp Leu Glu Ile
1055 1060 1065
Gln Ala Leu His Ala Arg Ile Ser Ser Thr Ser His Thr Gln Asp
1070 1075 1080
Val Val Tyr Leu Gln Gln Gln Leu Gln Ala Tyr Ala Met Glu Arg
1085 1090 1095
Glu Lys Val Phe Ala Val Leu Asn Glu Lys Thr Arg Glu Asn Ser
1100 1105 1110
His Leu Lys Thr Glu Tyr His Lys Met Met Asp Ile Val Ala Ala
1115 1120 1125
Lys Glu Ala Ala Leu Ile Lys Leu Gln Asp Glu Asn Lys Lys Leu

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1130	Ser Thr Arg Phe Glu Ser	1135	Ser Gly Gln Asp Met	1140	Phe Arg Glu Thr
1145	Ile Gln Asn Leu Ser Arg	1150	Ile Arg Glu Lys	1155	Ile Glu Ile
1160	Asp Ala Leu Ser Gln Lys	1165	Gln Thr Leu Leu	1170	Ala Val Leu Gln
1175	Thr Ser Ser Thr Gly Asn	1180	Ala Gly Gly Val	1185	Asn Ser His Gln
1190	Phe Glu Glu Leu Leu Gln	1195	Arg Asp Lys Leu	1200	Lys Gln Gln Val
1205	Lys Lys Met Glu Glu Trp	1210	Lys Gln Gln Val Met	1215	Thr Thr Val Gln
1220	Asn Met Gln His Glu Ser	1225	Ala Gln Leu Gln Glu	1230	Glu Leu His Gln
1235	Leu Gln Ala Gln Val Leu	1240	Val Asp Ser Asp Asn	1245	Asn Ser Lys Leu
1250	Gln Val Asp Tyr Thr Gly	1255	Ile Gln Ser Tyr	1260	Glu Gln Asn Glu
1265	Thr Lys Leu Lys Asn Phe	1270	Gly Gln Glu Leu Ala	1275	Gln Val Gln His
1280	Ser Ile Gly Gln Leu Cys	1285	Thr Lys Asp Leu Leu	1290	Leu Gly Lys
1295	Leu Asp Ile Ile Ser Pro	1300	Gln Leu Ser Ser Ala	1305	Ser Leu Leu Thr
1310	Pro Gln Ser Ala Glu Cys	1315	Leu Arg Ala Ser Lys	1320	Ser Glu Val Leu
1325	Ser Glu Ser Ser Glu Leu	1330	Leu Gln Gln Glu Leu	1335	Glu Glu Leu Arg
1340	Lys Ser Leu Gln Glu Lys	1345	Asp Ala Thr Ile Arg	1350	Thr Leu Gln Glu
1355	Asn Asn His Arg Leu Ser	1360	Asp Ser Ile Ala Ala	1365	Thr Ser Glu Leu
1370	Glu Arg Lys Glu His Glu	1375	Gln Thr Asp Ser Glu	1380	Ile Lys Gln Leu
1385	Lys Glu Lys Gln Asp Val	1390	Leu Gln Lys Leu Leu	1395	Lys Glu Lys Asp
1400	Leu Leu Ile Lys Ala Lys	1405	Ser Asp Gln Leu Leu	1410	Ser Ser Asn Glu
1415	Asn Phe Thr Asn Lys Val	1420	Asn Glu Asn Glu Leu	1425	Leu Arg Gln Ala
1430	Val Thr Asn Leu Lys Glu	1435	Arg Ile Leu Ile Leu	1440	Glu Met Asp Ile
1445	Gly Lys Leu Lys Gly Glu	1450	Asn Glu Lys Ile Val	1455	Glu Thr Tyr Arg
1460	Gly Lys Glu Thr Glu Tyr	1465	Gln Ala Leu Gln Glu	1470	Thr Asn Met Lys
1475	Phe Ser Met Met Leu Arg	1480	Lys Lys Glu Phe Glu	1485	Cys His Ser Met
1490	Lys Glu Lys Ala Leu Ala	1495	Phe Glu Gln Leu Leu	1500	Lys Glu Lys Glu
1505	Gln Gly Lys Thr Gly Glu	1510	Leu Asn Gln Leu Leu	1515	Asn Ala Val Lys
1520	Ser Met Gln Glu Lys Thr	1525	Val Val Phe Gln Gln	1530	Glu Arg Asp Gln
1535	Val Met Leu Ala Leu Lys	1540	Gln Lys Gln Met Glu	1545	Asn Thr Ala Leu
1550	Gln Asn Glu Val Gln Arg	1555	Leu Arg Asp Lys Glu	1560	Phe Arg Ser Asn
1565	Gln Glu Leu Glu Arg Leu	1570	Arg Asn His Leu Leu	1575	Glu Ser Glu Asp
1580	Ser Tyr Thr Arg Glu Ala	1585	Leu Ala Ala Glu Asp	1590	Arg Glu Ala Lys
1595	Leu Arg Lys Lys Val Thr	1600	Val Leu Glu Glu Lys	1605	Leu Val Ser Ser
1610	Ser Asn Ala Met Glu Asn	1615	Ala Ser His Gln Ala	1620	Ser Val Gln Val
1625	Glu Ser Leu Gln Glu Gln	1630	Leu Asn Val Val Ser	1635	Lys Gln Arg Asp
1640		1645		1650	

Glu Thr Ala Leu Gln Leu Ser Val Ser Gln Glu Gln Val Lys Gln
 1655 1660 1665
 Tyr Ala Leu Ser Leu Ala Asn Leu Gln Met Val Leu Glu His Phe
 1670 1675 1680
 Gln Gln Glu Glu Lys Ala Met Tyr Ser Ala Glu Leu Glu Lys Gln
 1685 1690 1695
 Lys Gln Leu Ile Ala Glu Trp Lys Lys Asn Ala Glu Asn Leu Glu
 1700 1705 1710
 Gly Lys Val Ile Ser Leu Gln Glu Cys Leu Asp Glu Ala Asn Ala
 1715 1720 1725
 Ala Leu Asp Ser Ala Ser Arg Leu Thr Glu Gln Leu Asp Val Lys
 1730 1735 1740
 Glu Glu Gln Ile Glu Glu Leu Lys Arg Gln Asn Glu Leu Arg Gln
 1745 1750 1755
 Glu Met Leu Asp Asp Val Gln Lys Lys Leu Met Ser Leu Ala Asn
 1760 1765 1770
 Ser Ser Glu Gly Lys Val Asp Lys Val Leu Met Arg Asn Leu Phe
 1775 1780 1785
 Ile Gly His Phe His Thr Pro Lys Asn Gln Arg His Glu Val Leu
 1790 1795 1800
 Arg Leu Met Gly Ser Ile Leu Gly Val Arg Arg Glu Glu Met Glu
 1805 1810 1815
 Gln Leu Phe His Asp Asp Gln Gly Ser Val Thr Arg Trp Met Thr
 1820 1825 1830
 Gly Trp Leu Gly Gly Gly Ser Lys Ser Val Pro Asn Thr Pro Leu
 1835 1840 1845
 Arg Pro Asn Gln Gln Ser Val Val Asn Ser Ser Phe Ser Glu Leu
 1850 1855 1860
 Phe Val Lys Phe Leu Glu Thr Glu Ser His Pro Ser Ile Pro Pro
 1865 1870 1875
 Pro Lys Leu Ser Val His Asp Met Lys Pro Leu Asp Ser Pro Gly
 1880 1885 1890
 Arg Arg Lys Arg Asp Thr Asn Ala Pro Glu Ser Phe Lys Asp Thr
 1895 1900 1905
 Ala Glu Ser Arg Ser Gly Arg Arg Thr Asp Val Asn Pro Phe Leu
 1910 1915 1920
 Ala Pro Arg Ser Ala Ala Val Pro Leu Ile Asn Pro Ala Gly Leu
 1925 1930 1935
 Gly Pro Gly Gly Pro Gly His Leu Leu Leu Lys Pro Ile Ser Asp
 1940 1945 1950
 Val Leu Pro Thr Phe Thr Pro Leu Pro Ala Leu Pro Asp Asn Ser
 1955 1960 1965
 Ala Gly Val Val Leu Lys Asp Leu Leu Lys Gln
 1970 1975

<210> 243

<211> 522

<212> PRT

<213> Homo sapiens

<400> 243

Met Ser Ser Arg Pro Leu Glu Ser Pro Pro Pro Tyr Arg Pro Asp Glu
 1 5 10 15
 Phe Lys Pro Asn His Tyr Ala Pro Ser Asn Asp Ile Tyr Gly Gly Glu
 20 25 30
 Met His Val Arg Pro Met Leu Ser Gln Pro Ala Tyr Ser Phe Tyr Pro
 35 40 45
 Glu Asp Glu Ile Leu His Phe Tyr Lys Trp Thr Ser Pro Pro Gly Val
 50 55 60
 Ile Arg Ile Leu Ser Met Leu Ile Ile Val Met Cys Ile Ala Ile Phe
 65 70 75 80
 Ala Cys Val Ala Ser Thr Leu Ala Trp Asp Arg Gly Tyr Gly Thr Ser
 85 90 95
 Leu Leu Gly Gly Ser Val Gly Tyr Pro Tyr Gly Gly Ser Gly Phe Gly
 100 105 110
 Ser Tyr Gly Ser Gly Tyr Gly Tyr Gly Tyr Gly Tyr Gly Tyr
 115 120 125
 Gly Gly Tyr Thr Asp Pro Arg Ala Ala Lys Gly Phe Met Leu Ala Met
 130 135 140
 Ala Ala Phe Cys Phe Ile Ala Ala Leu Val Ile Phe Val Thr Ser Val

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145          150          155          160
Ile Arg Ser Glu Met Ser Arg Thr Arg Arg Tyr Tyr Leu Ser Val Ile
165
Ile Val Ser Ala Ile Leu Gly Ile Met Val Phe Ile Ala Thr Ile Val
180
Tyr Ile Met Gly Val Asn Pro Thr Ala Gln Ser Ser Gly Ser Leu Tyr
195
Gly Ser Gln Ile Tyr Ala Leu Cys Asn Gln Phe Tyr Thr Pro Ala Ala
210
Thr Gly Leu Tyr Val Asp Gln Tyr Leu Tyr His Tyr Cys Val Val Asp
225
Pro Gln Glu Ala Ile Ala Ile Val Leu Gly Phe Met Ile Ile Val Ala
245
Phe Ala Leu Ile Ile Phe Phe Ala Val Lys Thr Arg Arg Lys Met Asp
260
Arg Tyr Asp Lys Ser Asn Ile Leu Trp Asp Lys Glu His Ile Tyr Asp
275
Glu Gln Pro Pro Asn Val Glu Glu Trp Val Lys Asn Val Ser Ala Gly
290
Thr Gln Asp Val Pro Ser Pro Pro Ser Asp Tyr Val Glu Arg Val Asp
305
Ser Pro Met Ala Tyr Ser Ser Asn Gly Lys Val Asn Asp Lys Arg Phe
325
Tyr Pro Glu Ser Ser Tyr Lys Ser Thr Pro Val Pro Glu Val Val Gln
340
Glu Leu Pro Leu Thr Ser Pro Val Asp Asp Phe Arg Gln Pro Arg Tyr
355
Ser Ser Gly Gly Asn Phe Glu Thr Pro Ser Lys Arg Ala Pro Ala Lys
370
Gly Arg Ala Gly Arg Ser Lys Arg Thr Glu Gln Asp His Tyr Glu Thr
385
Asp Tyr Thr Thr Gly Gly Glu Ser Cys Asp Glu Leu Glu Glu Asp Trp
405
Ile Arg Glu Tyr Pro Pro Ile Thr Ser Asp Gln Gln Arg Gln Leu Tyr
420
Lys Arg Asn Phe Asp Thr Gly Leu Gln Glu Tyr Lys Ser Leu Gln Ser
435
Glu Leu Asp Glu Ile Asn Lys Glu Leu Ser Arg Leu Asp Lys Glu Leu
450
Asp Asp Tyr Arg Glu Glu Ser Glu Glu Tyr Met Ala Ala Ala Asp Glu
465
Tyr Asn Arg Leu Lys Gln Val Lys Gly Ser Ala Asp Tyr Lys Ser Lys
485
Lys Asn His Cys Lys Gln Leu Lys Ser Lys Leu Ser His Ile Lys Lys
500
Met Val Gly Asp Tyr Asp Arg Gln Lys Thr
515

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<210> 244

<211> 2181

<212> PRT

<213> Homo sapiens

<400> 244

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Met Met Met Met Met Met Met Lys Lys Met Gln His Gln Arg Gln Gln
1      5      10
Gln Ala Asp His Ala Asn Glu Ala Asn Tyr Ala Arg Gly Thr Arg Leu
20
Pro Leu Ser Gly Glu Gly Pro Thr Ser Gln Pro Asn Ser Ser Lys Gln
35
Thr Val Leu Ser Trp Gln Ala Ala Ile Asp Ala Arg Gln Ala Lys
50
Ala Ala Gln Thr Met Ser Thr Ser Ala Pro Pro Pro Val Gly Ser Leu
65
Ser Gln Arg Lys Arg Gln Gln Tyr Ala Lys Ser Lys Lys Gln Gly Asn
85
Ser Ser Asn Ser Arg Pro Ala Arg Ala Leu Phe Cys Leu Ser Leu Asn
100
Asn Pro Ile Arg Arg Ala Cys Ile Ser Ile Val Glu Trp Lys Pro Phe
115

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Asp Ile Phe Ile Leu Leu Ala Ile Phe Ala Asn Cys Val Ala Leu Ala
130      135      140
Ile Tyr Ile Pro Phe Pro Glu Asp Asp Ser Asn Ser Thr Asn His Asn
145      150      155      160
Leu Glu Lys Val Glu Tyr Ala Phe Leu Ile Ile Phe Thr Val Glu Thr
165      170      175
Phe Leu Lys Ile Ile Ala Tyr Gly Leu Leu Leu His Pro Asn Ala Tyr
180      185      190
Val Arg Asn Gly Trp Asn Leu Leu Asp Phe Val Ile Val Ile Val Gly
195      200      205
Leu Phe Ser Val Ile Leu Glu Gln Leu Thr Lys Glu Thr Glu Gly Gly
210      215      220
Asn His Ser Ser Gly Lys Ser Gly Gly Phe Asp Val Lys Ala Leu Arg
225      230      235      240
Ala Phe Arg Val Leu Arg Pro Leu Arg Leu Val Ser Gly Val Pro Ser
245      250      255
Leu Gln Val Val Leu Asn Ser Ile Ile Lys Ala Met Val Pro Leu Leu
260      265      270
His Ile Ala Leu Leu Val Leu Phe Val Ile Ile Ile Tyr Ala Ile Ile
275      280      285
Gly Leu Glu Leu Phe Ile Gly Lys Met His Lys Thr Cys Phe Phe Ala
290      295      300
Asp Ser Asp Ile Val Ala Glu Glu Asp Pro Ala Pro Cys Ala Phe Ser
305      310      315      320
Gly Asn Gly Arg Gln Cys Thr Ala Asn Gly Thr Glu Cys Arg Ser Gly
325      330      335
Trp Val Gly Pro Asn Gly Gly Ile Thr Asn Phe Asp Asn Phe Ala Phe
340      345      350
Ala Met Leu Thr Val Phe Gln Cys Ile Thr Met Glu Gly Trp Thr Asp
355      360      365
Val Leu Tyr Trp Val Asn Asp Ala Ile Gly Trp Glu Trp Pro Trp Val
370      375      380
Tyr Phe Val Ser Leu Ile Ile Leu Gly Ser Phe Phe Val Leu Asn Leu
385      390      395      400
Val Leu Gly Val Leu Ser Gly Glu Phe Ser Lys Glu Arg Glu Lys Ala
405      410      415
Lys Ala Arg Gly Asp Phe Gln Lys Leu Arg Glu Lys Gln Gln Leu Glu
420      425      430
Glu Asp Leu Lys Gly Tyr Leu Asp Trp Ile Thr Gln Ala Glu Asp Ile
435      440      445
Asp Pro Glu Asn Glu Glu Glu Gly Gly Glu Glu Gly Lys Arg Asn Thr
450      455      460
Ser Met Pro Thr Ser Glu Thr Glu Ser Val Asn Thr Glu Asn Val Ser
465      470      475      480
Gly Glu Gly Glu Asn Arg Gly Cys Cys Gly Ser Leu Trp Cys Trp Trp
485      490      495
Arg Arg Arg Gly Ala Ala Lys Ala Gly Pro Ser Gly Cys Arg Arg Trp
500      505      510
Gly Gln Ala Ile Ser Lys Ser Lys Leu Ser Arg Arg Trp Arg Arg Trp
515      520      525
Asn Arg Phe Asn Arg Arg Arg Cys Arg Ala Ala Val Lys Ser Val Thr
530      535      540
Phe Tyr Trp Leu Val Ile Val Leu Val Phe Leu Asn Thr Leu Thr Ile
545      550      555      560
Ser Ser Glu His Tyr Asn Gln Pro Asp Trp Leu Thr Gln Ile Gln Asp
565      570      575
Ile Ala Asn Lys Val Leu Leu Ala Leu Phe Thr Cys Glu Met Leu Val
580      585      590
Lys Met Tyr Ser Leu Gly Leu Gln Ala Tyr Phe Val Ser Leu Phe Asn
595      600      605
Arg Phe Asp Cys Phe Val Val Cys Gly Gly Ile Thr Glu Thr Ile Leu
610      615      620
Val Glu Leu Glu Ile Met Ser Pro Leu Gly Ile Ser Val Phe Arg Cys
625      630      635      640
Val Arg Leu Leu Arg Ile Phe Lys Val Thr Arg His Trp Thr Ser Leu
645      650      655
Ser Asn Leu Val Ala Ser Leu Leu Asn Ser Met Lys Ser Ile Ala Ser
660      665      670
Leu Leu Leu Leu Leu Phe Leu Phe Ile Ile Ile Phe Ser Leu Leu Gly

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- 276 -

Trp	Tyr	Val	Val	Asn	Ser	Ser	Pro	Phe	Glu	Tyr	Met	Met	Phe	Val
1220						1225					1230			
Leu	Ile	Met	Leu	Asn	Thr	Leu	Cys	Leu	Ala	Met	Gln	His	Tyr	Glu
1235						1240					1245			
Gln	Ser	Lys	Met	Phe	Asn	Asp	Ala	Met	Asp	Ile	Leu	Asn	Met	Val
1250						1255					1260			
Phe	Thr	Gly	Val	Phe	Thr	Val	Glu	Met	Val	Leu	Lys	Val	Ile	Ala
1265						1270					1275			
Phe	Lys	Pro	Lys	Gly	Tyr	Phe	Ser	Asp	Ala	Trp	Asn	Thr	Phe	Asp
1280						1285					1290			
Ser	Leu	Ile	Val	Ile	Gly	Ser	Ile	Ile	Asp	Val	Ala	Leu	Ser	Glu
1295						1300					1305			
Ala	Asp	Pro	Thr	Glu	Ser	Glu	Asn	Val	Pro	Val	Pro	Thr	Ala	Thr
1310						1315					1320			
Pro	Gly	Asn	Ser	Glu	Glu	Ser	Asn	Arg	Ile	Ser	Ile	Thr	Phe	Phe
1325						1330					1335			
Arg	Leu	Phe	Arg	Val	Met	Arg	Leu	Val	Lys	Leu	Leu	Ser	Arg	Gly
1340						1345					1350			
Glu	Gly	Ile	Arg	Thr	Leu	Leu	Trp	Thr	Phe	Ile	Lys	Ser	Phe	Gln
1355						1360					1365			
Ala	Leu	Pro	Tyr	Val	Ala	Leu	Leu	Ile	Ala	Met	Leu	Phe	Phe	Ile
1370						1375					1380			
Tyr	Ala	Val	Ile	Gly	Met	Gln	Met	Phe	Gly	Lys	Val	Ala	Met	Arg
1385						1390					1395			
Asp	Asn	Asn	Gln	Ile	Asn	Arg	Asn	Asn	Asn	Phe	Gln	Thr	Phe	Pro
1400						1405					1410			
Gln	Ala	Val	Leu	Leu	Leu	Phe	Arg	Cys	Ala	Thr	Gly	Glu	Ala	Trp
1415						1420					1425			
Gln	Glu	Ile	Met	Leu	Ala	Cys	Leu	Pro	Gly	Lys	Leu	Cys	Asp	Pro
1430						1435					1440			
Glu	Ser	Asp	Tyr	Asn	Pro	Gly	Glu	Glu	Tyr	Thr	Cys	Gly	Ser	Asn
1445						1450					1455			
Phe	Ala	Ile	Val	Tyr	Phe	Ile	Ser	Phe	Tyr	Met	Leu	Cys	Ala	Phe
1460						1465					1470			
Leu	Ile	Ile	Asn	Leu	Phe	Val	Ala	Val	Ile	Met	Asp	Asn	Phe	Asp
1475						1480					1485			
Tyr	Leu	Thr	Arg	Asp	Trp	Ser	Ile	Leu	Gly	Pro	His	His	Leu	Asp
1490						1495					1500			
Glu	Phe	Lys	Arg	Ile	Trp	Ser	Glu	Tyr	Asp	Pro	Glu	Ala	Lys	Gly
1505						1510					1515			
Arg	Ile	Lys	His	Leu	Asp	Val	Val	Thr	Leu	Leu	Arg	Arg	Ile	Gln
1520						1525					1530			
Pro	Pro	Leu	Gly	Phe	Gly	Lys	Leu	Cys	Pro	His	Arg	Val	Ala	Cys
1535						1540					1545			
Lys	Arg	Leu	Val	Ala	Met	Asn	Met	Pro	Leu	Asn	Ser	Asp	Gly	Thr
1550						1555					1560			
Val	Met	Phe	Asn	Ala	Thr	Leu	Phe	Ala	Leu	Val	Arg	Thr	Ala	Leu
1565						1570					1575			
Lys	Ile	Lys	Thr	Glu	Gly	Asn	Leu	Glu	Gln	Ala	Asn	Glu	Glu	Leu
1580						1585					1590			
Arg	Ala	Val	Ile	Lys	Lys	Ile	Trp	Lys	Lys	Thr	Ser	Met	Lys	Leu
1595						1600					1605			
Leu	Asp	Gln	Val	Val	Pro	Pro	Ala	Gly	Asp	Asp	Glu	Val	Thr	Val
1610						1615					1620			
Gly	Lys	Phe	Tyr	Ala	Thr	Phe	Leu	Ile	Gln	Asp	Tyr	Phe	Arg	Lys
1625						1630					1635			
Phe	Lys	Lys	Arg	Lys	Glu	Gln	Gly	Leu	Val	Gly	Lys	Tyr	Pro	Ala
1640						1645					1650			
Lys	Asn	Thr	Thr	Ile	Ala	Leu	Gln	Ala	Gly	Leu	Arg	Thr	Leu	His
1655						1660					1665			
Asp	Ile	Gly	Pro	Glu	Ile	Arg	Arg	Ala	Ile	Ser	Cys	Asp	Leu	Gln
1670						1675					1680			
Asp	Asp	Glu	Pro	Glu	Glu	Thr	Lys	Arg	Glu	Glu	Glu	Asp	Asp	Val
1685						1690					1695			
Phe	Lys	Arg	Asn	Gly	Ala	Leu	Leu	Gly	Asn	His	Val	Asn	His	Val
1700						1705					1710			
Asn	Ser	Asp	Arg	Arg	Asp	Ser	Leu	Gln	Gln	Thr	Asn	Thr	Thr	His
1715						1720					1725			
Arg	Pro	Leu	His	Val	Gln	Arg	Pro	Ser	Ile	Pro	Pro	Ala	Ser	Asp

1730	1735	1740
Thr Glu Lys Pro Leu Phe Pro	Pro Ala Gly Asn Ser	Val Cys His
1745	1750	1755
Asn His His Asn His Asn Ser	Ile Gly Lys Gln Val	Pro Thr Ser
1760	1765	1770
Thr Asn Ala Asn Leu Asn Asn	Ala Asn Met Ser Lys	Ala Ala His
1775	1780	1785
Gly Lys Arg Pro Ser Ile Gly	Asn Leu Glu His Val	Ser Glu Asn
1790	1795	1800
Gly His His Ser Ser His Lys	His Asp Arg Glu Pro	Gln Arg Arg
1805	1810	1815
Ser Ser Val Lys Arg Thr Arg	Tyr Tyr Glu Thr Tyr	Ile Arg Ser
1820	1825	1830
Asp Ser Gly Asp Glu Gln Leu	Pro Thr Ile Cys Arg	Glu Asp Pro
1835	1840	1845
Glu Ile His Gly Tyr Phe Arg	Asp Pro His Cys Leu	Gly Glu Gln
1850	1855	1860
Glu Tyr Phe Ser Ser Glu Glu	Cys Tyr Glu Asp Asp	Ser Ser Pro
1865	1870	1875
Thr Trp Ser Arg Gln Asn Tyr	Gly Tyr Tyr Ser Arg	Tyr Pro Gly
1880	1885	1890
Arg Asn Ile Asp Ser Glu Arg	Pro Arg Gly Tyr His	His Pro Gln
1895	1900	1905
Gly Phe Leu Glu Asp Asp Asp	Ser Pro Val Cys Tyr	Asp Ser Arg
1910	1915	1920
Arg Ser Pro Arg Arg Arg Leu	Leu Pro Pro Thr Pro	Ala Ser His
1925	1930	1935
Arg Arg Ser Ser Phe Asn Phe	Glu Cys Leu Arg Arg	Gln Ser Ser
1940	1945	1950
Gln Glu Glu Val Pro Ser Ser	Pro Ile Phe Pro His	Arg Thr Ala
1955	1960	1965
Leu Pro Leu His Leu Met Gln	Gln Gln Ile Met Ala	Val Ala Gly
1970	1975	1980
Leu Asp Ser Ser Lys Ala Gln	Lys Tyr Ser Pro Ser	His Ser Thr
1985	1990	1995
Arg Ser Trp Ala Thr Pro Pro	Ala Thr Pro Pro Tyr	Arg Asp Trp
2000	2005	2010
Thr Pro Cys Tyr Thr Pro Leu	Ile Gln Val Glu Gln	Ser Glu Ala
2015	2020	2025
Leu Asp Gln Val Asn Gly Ser	Leu Pro Ser Leu His	Arg Ser Ser
2030	2035	2040
Trp Tyr Thr Asp Glu Pro Asp	Ile Ser Tyr Arg Thr	Phe Thr Pro
2045	2050	2055
Ala Ser Leu Thr Val Pro Ser	Ser Phe Arg Asn Lys	Asn Ser Asp
2060	2065	2070
Lys Gln Arg Ser Ala Asp Ser	Leu Val Glu Ala Val	Leu Ile Ser
2075	2080	2085
Glu Gly Leu Gly Arg Tyr Ala	Arg Asp Pro Lys Phe	Val Ser Ala
2090	2095	2100
Thr Lys His Glu Ile Ala Asp	Ala Cys Asp Leu Thr	Ile Asp Glu
2105	2110	2115
Met Glu Ser Ala Ala Ser Thr	Leu Leu Asn Gly Asn	Val Arg Pro
2120	2125	2130
Arg Ala Asn Gly Asp Val Gly	Pro Leu Ser His Arg	Gln Asp Tyr
2135	2140	2145
Glu Leu Gln Asp Phe Gly Pro	Gly Tyr Ser Asp Glu	Glu Pro Asp
2150	2155	2160
Pro Gly Arg Asp Glu Glu Asp	Leu Ala Asp Glu Met	Ile Cys Ile
2165	2170	2175
Thr Thr Leu		
2180		

<210> 245

<211> 377

<212> PRT

<213> Homo sapiens

<400> 245

Met	Glu	Leu	Ser	Val	Leu	Leu	Phe	Leu	Ala	Leu	Leu	Thr	Gly	Leu	Leu
1					5				10					15	

Leu Leu Leu Val Gln Arg His Pro Asn Ser His Gly Thr Leu Pro Pro
 20 25 30
 Gly Pro Arg Pro Leu Pro Leu Leu Gly Asn Leu Leu Gln Met Asp Arg
 35 40 45
 Arg Gly Leu Leu Lys Ser Phe Leu Arg Phe Arg Glu Lys Tyr Gly Asp
 50 55 60
 Val Phe Thr Val His Leu Gly Pro Arg Pro Val Val Met Leu Cys Gly
 65 70 75 80
 Val Glu Ala Ile Arg Glu Ala Leu Val Asp Asn Ala Glu Ala Phe Ser
 85 90 95
 Gly Arg Gly Lys Ile Val Ile Met Asp Pro Val Tyr Gln Gly Tyr Gly
 100 105 110
 Met Leu Phe Ala Asn Gly Asn Arg Trp Lys Val Leu Arg Arg Phe Ser
 115 120 125
 Val Thr Thr Met Arg Asp Phe Gly Met Gly Lys Arg Ser Val Glu Glu
 130 135 140
 Arg Ile Gln Asp Glu Ala Gln Cys Leu Ile Glu Glu Leu Arg Lys Ser
 145 150 155 160
 Lys Gly Ala Leu Val Asp Pro Thr Phe Leu Phe His Ser Ile Thr Ala
 165 170 175
 Asn Ile Ile Cys Ser Ile Ile Phe Gly Lys Arg Phe His Tyr Gln Asp
 180 185 190
 Gln Glu Phe Leu Lys Thr Leu Asn Leu Phe Cys Gln Ser Phe Leu Leu
 195 200 205
 Ile Ser Ser Ile Ser Ser Gln Leu Phe Glu Leu Phe Ser Gly Phe Leu
 210 215 220
 Lys Tyr Phe Pro Gly Ala His Arg Gln Val Tyr Lys Asn Leu Gln Glu
 225 230 235 240
 Ile Asn Ala Tyr Ile Gly His Ser Val Glu Lys His Arg Glu Thr Leu
 245 250 255
 Asp Pro Ser Ala Pro Arg Asp Leu Ile Asp Thr Tyr Leu Leu His Met
 260 265 270
 Glu Lys Glu Lys Ser Asn Pro His Ser Glu Phe Ser His Gln Asn Leu
 275 280 285
 Ile Ile Asn Thr Leu Ser Leu Phe Phe Ala Gly Thr Glu Thr Thr Ser
 290 295 300
 Thr Thr Leu Arg Tyr Gly Phe Leu Leu Met Leu Lys Tyr Pro His Val
 305 310 315 320
 Ala Glu Arg Val Tyr Lys Glu Ile Glu Gln Val Val Gly Pro His Arg
 325 330 335
 Pro Pro Ala Leu Asp Asp Arg Ala Lys Met Pro Tyr Thr Glu Ala Val
 340 345 350
 Ile Arg Glu Ile Gln Arg Phe Ala Asp Leu Leu Pro Met Gly Val Pro
 355 360 365
 His Ile Val Thr Gln His Thr Ser Phe
 370 375

<210> 246

<211> 280

<212> PRT

<213> Homo sapiens

<400> 246

Met Ala Glu Lys Phe Asp Cys His Tyr Cys Arg Asp Pro Leu Gln Gly
 1 5 10 15
 Lys Lys Tyr Val Gln Lys Asp Gly His His Cys Cys Leu Lys Cys Phe
 20 25 30
 Asp Lys Phe Cys Ala Asn Thr Cys Val Glu Cys Arg Lys Pro Ile Gly
 35 40 45
 Ala Asp Ser Lys Glu Val His Tyr Lys Asn Arg Phe Trp His Asp Thr
 50 55 60
 Cys Phe Arg Cys Ala Lys Cys Leu His Pro Leu Ala Asn Glu Thr Phe
 65 70 75 80
 Val Ala Lys Asp Asn Lys Ile Leu Cys Asn Lys Cys Thr Thr Arg Glu
 85 90 95
 Asp Ser Pro Lys Cys Lys Gly Cys Phe Lys Ala Ile Val Ala Gly Asp
 100 105 110
 Gln Asn Val Glu Tyr Lys Gly Thr Val Trp His Lys Asp Cys Phe Thr
 115 120 125
 Cys Ser Asn Cys Lys Gln Val Ile Gly Thr Gly Ser Phe Phe Pro Lys

130	135	140
Gly Glu Asp Phe Tyr Cys Val Thr Cys His Glu Thr Lys Phe Ala Lys		
145	150	155
His Cys Val Lys Cys Asn Lys Ala Ile Thr Ser Gly Gly Ile Thr Tyr		
	165	170
Gln Asp Gln Pro Trp His Ala Asp Cys Phe Val Cys Val Thr Cys Ser		
	180	185
Lys Lys Leu Ala Gly Gln Arg Phe Thr Ala Val Glu Asp Gln Tyr Tyr		
	195	200
Cys Val Asp Cys Tyr Lys Asn Phe Val Ala Lys Lys Cys Ala Gly Cys		
	210	215
Lys Asn Pro Ile Thr Gly Phe Gly Lys Gly Ser Ser Val Val Ala Tyr		
225	230	235
Glu Gly Gln Ser Trp His Asp Tyr Cys Phe His Cys Lys Lys Cys Ser		
	245	250
Val Asn Leu Ala Asn Lys Arg Phe Val Phe His Gln Glu Gln Val Tyr		
	260	265
Cys Pro Asp Cys Ala Lys Lys Leu		
	275	280

<210> 247
 <211> 267
 <212> PRT
 <213> Homo sapiens
 <400> 247

Met Ala Ser Pro Ser Lys Gly Asn Asp Leu Phe Ser Pro Asp Glu Glu	
1	5
Gly Pro Ala Val Val Ala Gly Pro Gly Pro Gly Pro Gly Gly Ala Glu	
	20
Gly Ala Ala Glu Glu Arg Arg Val Lys Val Ser Ser Leu Pro Phe Ser	
	35
Val Glu Ala Leu Met Ser Asp Lys Lys Pro Pro Lys Glu Ala Ser Pro	
	50
Leu Pro Ala Glu Ser Ala Ser Ala Gly Ala Thr Leu Arg Pro Leu Leu	
65	70
Leu Ser Gly His Gly Ala Arg Glu Ala His Ser Pro Gly Pro Leu Val	
	85
Lys Pro Phe Glu Thr Ala Ser Val Lys Ser Glu Asn Ser Glu Asp Gly	
	100
Ala Ala Trp Met Gln Glu Pro Gly Arg Tyr Ser Pro Pro Pro Arg His	
	115
Met Ser Pro Thr Thr Cys Thr Leu Arg Lys His Lys Thr Asn Arg Lys	
	130
Pro Arg Thr Pro Phe Thr Thr Ser Gln Leu Leu Ala Leu Glu Arg Lys	
145	150
Phe Arg Gln Lys Gln Tyr Leu Ser Ile Ala Glu Arg Ala Glu Phe Ser	
	165
Ser Ser Leu Asn Leu Thr Glu Thr Gln Val Lys Ile Trp Phe Gln Asn	
	180
Arg Arg Ala Lys Ala Lys Arg Leu Gln Glu Ala Glu Leu Glu Lys Leu	
	195
Lys Met Ala Ala Lys Pro Met Leu Pro Ser Ser Phe Ser Leu Pro Phe	
	210
Pro Ile Ser Ser Pro Leu Gln Ala Ala Ser Ile Tyr Gly Ala Ser Tyr	
225	230
Pro Phe His Arg Pro Val Leu Pro Ile Pro Pro Val Gly Leu Tyr Ala	
	245
Thr Pro Val Gly Tyr Gly Met Tyr His Leu Ser	
	260
	265

<210> 248
 <211> 387
 <212> PRT
 <213> Homo sapiens
 <400> 248

Met Pro Gly His Leu Gln Glu Gly Phe Gly Cys Val Val Thr Asn Arg	
1	5
Phe Asp Gln Leu Phe Asp Asp Glu Ser Asp Pro Phe Glu Val Leu Lys	
	20
	25
	30

Ala Ala Glu Asn Lys Lys Lys Glu Ala Gly Gly Gly Gly Val Gly Gly
 35 40 45
 Pro Gly Ala Lys Ser Ala Ala Gln Ala Ala Ala Gln Thr Asn Ser Asn
 50 55 60
 Ala Ala Gly Lys Gln Leu Arg Lys Glu Ser Gln Lys Asp Arg Lys Asn
 65 70 75 80
 Pro Leu Pro Pro Ser Val Gly Val Val Asp Lys Lys Glu Glu Thr Gln
 85 90 95
 Pro Pro Val Ala Leu Lys Lys Glu Gly Ile Arg Arg Val Gly Arg Arg
 100 105 110
 Pro Asp Gln Gln Leu Gln Gly Glu Gly Lys Ile Ile Asp Arg Arg Pro
 115 120 125
 Glu Arg Arg Pro Pro Arg Glu Arg Arg Phe Glu Lys Pro Leu Glu Glu
 130 135 140
 Lys Gly Glu Gly Gly Glu Phe Ser Val Asp Arg Pro Ile Ile Asp Arg
 145 150 155 160
 Pro Ile Arg Gly Arg Gly Gly Leu Gly Arg Gly Arg Gly Gly Arg Gly
 165 170 175
 Arg Gly Met Gly Arg Gly Asp Gly Phe Asp Ser Arg Gly Lys Arg Glu
 180 185 190
 Phe Asp Arg His Ser Gly Ser Asp Arg Ser Gly Leu Lys His Glu Asp
 195 200 205
 Lys Arg Gly Gly Ser Gly Ser His Asn Trp Gly Thr Val Lys Asp Glu
 210 215 220
 Leu Thr Asp Leu Asp Gln Ser Asn Val Thr Glu Glu Thr Pro Glu Gly
 225 230 235 240
 Glu Glu His His Pro Val Ala Asp Thr Glu Asn Lys Glu Asn Glu Val
 245 250 255
 Glu Glu Val Lys Glu Glu Gly Pro Lys Glu Met Thr Leu Asp Glu Trp
 260 265 270
 Lys Ala Ile Gln Asn Lys Asp Arg Ala Lys Val Glu Phe Asn Ile Arg
 275 280 285
 Lys Pro Asn Glu Gly Ala Asp Gly Gln Trp Lys Lys Gly Phe Val Leu
 290 295 300
 His Lys Ser Lys Ser Glu Glu Ala His Ala Glu Asp Ser Val Met Asp
 305 310 315 320
 His His Phe Arg Lys Pro Ala Asn Asp Ile Thr Ser Gln Leu Glu Ile
 325 330 335
 Asn Phe Gly Asp Leu Gly Arg Pro Gly Arg Gly Gly Arg Gly Gly Arg
 340 345 350
 Gly Gly Arg Gly Arg Gly Gly Arg Pro Asn Arg Gly Ser Arg Thr Asp
 355 360 365
 Lys Ser Ser Ala Ser Ala Pro Asp Val Asp Asp Pro Glu Ala Phe Pro
 370 375 380
 Ala Leu Ala
 385

<210> 249

<211> 239

<212> PRT

<213> Homo sapiens

<400> 249

Met Ala Ser Thr Ala Val Gln Leu Leu Gly Phe Leu Leu Ser Phe Leu
 1 5 10 15
 Gly Met Val Gly Thr Leu Ile Thr Thr Ile Leu Pro His Trp Arg Arg
 20 25 30
 Thr Ala His Val Gly Thr Asn Ile Leu Thr Ala Val Ser Tyr Leu Lys
 35 40 45
 Gly Leu Trp Met Glu Cys Val Trp His Ser Thr Gly Ile Tyr Gln Cys
 50 55 60
 Gln Ile Tyr Arg Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala
 65 70 75 80
 Arg Ala Leu Met Val Ile Ser Cys Leu Leu Ser Gly Ile Ala Cys Ala
 85 90 95
 Cys Ala Val Ile Gly Met Lys Cys Thr Arg Cys Ala Lys Gly Thr Pro
 100 105 110
 Ala Lys Thr Thr Phe Ala Ile Leu Gly Gly Thr Leu Phe Ile Leu Ala
 115 120 125
 Gly Leu Leu Cys Met Val Ala Val Ser Trp Thr Thr Asn Asp Val Val

130	135	140
Gln Asn Phe Tyr Asn Pro	Leu Leu Pro Ser Gly Met Lys Phe Glu Ile	
145	150	155
Gly Gln Ala Leu Tyr Leu	Gly Phe Ile Ser Ser Ser Leu Ser Leu Ile	
	165	170
Gly Gly Thr Leu Leu Cys Leu Ser Cys	Gln Asp Glu Ala Pro Tyr Arg	
	180	185
Pro Tyr Gln Ala Pro Pro Arg Ala	Thr Thr Thr Thr Ala Asn Thr Ala	
	195	200
Pro Ala Tyr Gln Pro Pro Ala Ala	Tyr Lys Asp Asn Arg Ala Pro Ser	
	210	215
Val Thr Ser Ala Thr His Ser Gly	Tyr Arg Leu Asn Asp Tyr Val	
225	230	235

<210> 250

<211> 414

<212> PRT

<213> Homo sapiens

<400> 250

Met Gln Thr Phe Leu Lys Gly Lys Arg Val Gly Tyr Trp Leu Ser Glu	
1	5
Lys Lys Ile Lys Lys Leu Asn Phe Gln Ala Phe Ala Glu Leu Cys Arg	
	20
Lys Arg Gly Met Glu Val Val Gln Leu Asn Leu Ser Arg Pro Ile Glu	
	35
Glu Gln Gly Pro Leu Asp Val Ile Ile His Lys Leu Thr Asp Val Ile	
	50
Leu Glu Ala Asp Gln Asn Asp Ser Gln Ser Leu Glu Leu Val His Arg	
	65
Phe Gln Glu Tyr Ile Asp Ala His Pro Glu Thr Ile Val Leu Asp Pro	
	80
Leu Pro Ala Ile Arg Thr Leu Leu Asp Arg Ser Lys Ser Tyr Glu Leu	
	95
Ile Arg Lys Ile Glu Ala Tyr Met Glu Asp Asp Arg Ile Cys Ser Pro	
	110
Pro Phe Met Glu Leu Thr Ser Leu Cys Gly Asp Asp Thr Met Arg Leu	
	125
Leu Glu Lys Asn Gly Leu Thr Phe Pro Phe Ile Cys Lys Thr Arg Val	
	140
Ala His Gly Thr Asn Ser His Glu Met Ala Ile Val Phe Asn Gln Glu	
	155
Gly Leu Asn Ala Ile Gln Pro Pro Cys Val Val Gln Asn Phe Ile Asn	
	170
His Asn Ala Val Leu Tyr Lys Val Phe Val Val Gly Glu Ser Tyr Thr	
	185
Val Val Gln Arg Pro Ser Leu Lys Asn Phe Ser Ala Gly Thr Ser Asp	
	200
Arg Glu Ser Ile Phe Phe Asn Ser His Asn Val Ser Lys Pro Glu Ser	
	215
Ser Ser Val Leu Thr Glu Leu Asp Lys Ile Glu Gly Val Phe Glu Arg	
	230
Pro Ser Asp Glu Val Ile Arg Glu Leu Ser Arg Ala Leu Arg Gln Ala	
	245
Leu Gly Val Ser Leu Phe Gly Ile Asp Ile Ile Ile Asn Asn Gln Thr	
	260
Gly Gln His Ala Val Ile Asp Ile Asn Ala Phe Pro Gly Tyr Glu Gly	
	275
Val Ser Glu Phe Phe Thr Asp Leu Leu Asn His Ile Ala Thr Val Leu	
	290
Gln Gly Gln Ser Thr Ala Met Ala Ala Thr Gly Asp Val Ala Leu Leu	
	305
Arg His Ser Lys Leu Leu Ala Glu Pro Ala Gly Gly Leu Val Gly Glu	
	320
Arg Thr Cys Ser Ala Ser Pro Gly Cys Cys Gly Ser Met Met Gly Gln	
	335
Asp Ala Pro Trp Lys Ala Glu Ala Asp Ala Gly Gly Thr Ala Lys Leu	
	350
Pro His Gln Arg Leu Gly Cys Asn Ala Gly Val Ser Pro Ser Phe Gln	
	365
385	390
	395
	400

Gln His Cys Val Ala Ser Leu Ala Thr Lys Ala Ser Ser Gln
405 410

<210> 251

<211> 1255

<212> PRT

<213> Homo sapiens

<400> 251

Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu
1 5 10 15
Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys
20 25 30
Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His
35 40 45
Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr
50 55 60
Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val
65 70 75 80
Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu
85 90 95
Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr
100 105 110
Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro
115 120 125
Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser
130 135 140
Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln
145 150 155 160
Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn
165 170 175
Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys
180 185 190
His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser
195 200 205
Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys
210 215 220
Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys
225 230 235 240
Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu
245 250 255
His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val
260 265 270
Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg
275 280 285
Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu
290 295 300
Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln
305 310 315 320
Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys
325 330 335
Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu
340 345 350
Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys
355 360 365
Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp
370 375 380
Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe
385 390 395 400
Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro
405 410 415
Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg
420 425 430
Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu
435 440 445
Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly
450 455 460
Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val
465 470 475 480
Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr

- 284 -

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Ala Gly Gly Met Val His His Arg His Arg Ser Ser Ser Thr Arg
1040 1045 1050
Ser Gly Gly Gly Asp Leu Thr Leu Gly Leu Glu Pro Ser Glu Glu
1055 1060 1065
Glu Ala Pro Arg Ser Pro Leu Ala Pro Ser Glu Gly Ala Gly Ser
1070 1075 1080
Asp Val Phe Asp Gly Asp Leu Gly Met Gly Ala Ala Lys Gly Leu
1085 1090 1095
Gln Ser Leu Pro Thr His Asp Pro Ser Pro Leu Gln Arg Tyr Ser
1100 1105 1110
Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr Asp Gly Tyr Val
1115 1120 1125
Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val Asn Gln Pro
1130 1135 1140
Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro Leu Pro
1145 1150 1155
Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr Leu
1160 1165 1170
Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly
1175 1180 1185
Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala
1190 1195 1200
Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp
1205 1210 1215
Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro
1220 1225 1230
Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr
1235 1240 1245
Leu Gly Leu Asp Val Pro Val
1250 1255

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<210> 252

<211> 393

<212> PRT

<213> Homo sapiens

<400> 252

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Met Glu Glu Pro Gln Ser Asp Pro Ser Val Glu Pro Pro Leu Ser Gln
1 5 10 15
Glu Thr Phe Ser Asp Leu Trp Lys Leu Leu Pro Glu Asn Asn Val Leu
20 25 30
Ser Pro Leu Pro Ser Gln Ala Met Asp Asp Leu Met Leu Ser Pro Asp
35 40 45
Asp Ile Glu Gln Trp Phe Thr Glu Asp Pro Gly Pro Asp Glu Ala Pro
50 55 60
Arg Met Pro Glu Ala Ala Pro Arg Val Ala Pro Ala Ala Pro
65 70 75 80
Thr Pro Ala Ala Pro Ala Pro Ala Pro Ser Trp Pro Leu Ser Ser Ser
85 90 95
Val Pro Ser Gln Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu Gly
100 105 110
Phe Leu His Ser Gly Thr Ala Lys Ser Val Thr Cys Thr Tyr Ser Pro
115 120 125
Ala Leu Asn Lys Met Phe Cys Gln Leu Ala Lys Thr Cys Pro Val Gln
130 135 140
Leu Trp Val Asp Ser Thr Pro Pro Pro Gly Thr Arg Val Arg Ala Met
145 150 155 160
Ala Ile Tyr Lys Gln Ser Gln His Met Thr Glu Val Val Arg Arg Cys
165 170 175
Pro His His Glu Arg Cys Ser Asp Ser Asp Gly Leu Ala Pro Pro Gln
180 185 190
His Leu Ile Arg Val Glu Gly Asn Leu Arg Val Glu Tyr Leu Asp Asp
195 200 205
Arg Asn Thr Phe Arg His Ser Val Val Val Pro Tyr Glu Pro Pro Glu
210 215 220
Val Gly Ser Asp Cys Thr Thr Ile His Tyr Asn Tyr Met Cys Asn Ser
225 230 235 240
Ser Cys Met Gly Gly Met Asn Arg Arg Pro Ile Leu Thr Ile Ile Thr
245 250 255
Leu Glu Asp Ser Ser Gly Asn Leu Leu Gly Arg Asn Ser Phe Glu Val

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      260      265      270
Arg Val Cys Ala Cys Pro Gly Arg Asp Arg Arg Thr Glu Glu Glu Asn
      275      280      285
Leu Arg Lys Lys Gly Glu Pro His His Glu Leu Pro Pro Gly Ser Thr
      290      295      300
Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys
      305      310      315      320
Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg Glu
      325      330      335
Arg Phe Glu Met Phe Arg Glu Leu Asn Glu Ala Leu Glu Leu Lys Asp
      340      345      350
Ala Gln Ala Gly Lys Glu Pro Gly Gly Ser Arg Ala His Ser Ser His
      355      360      365
Leu Lys Ser Lys Lys Gly Gln Ser Thr Ser Arg His Lys Lys Leu Met
      370      375      380
Phe Lys Thr Glu Gly Pro Asp Ser Asp
      385      390

<210> 253
<211> 639
<212> PRT
<213> Homo sapiens
<400> 253
Met Ser Ala Arg Gly Pro Ala Ile Gly Ile Asp Leu Gly Thr Thr Tyr
1      5      10      15
Ser Cys Val Gly Val Phe Gln His Gly Lys Val Glu Ile Ile Ala Asn
      20      25      30
Asp Gln Gly Asn Arg Thr Thr Pro Ser Tyr Val Ala Phe Thr Asp Thr
      35      40      45
Glu Arg Leu Ile Gly Asp Ala Ala Lys Asn Gln Val Ala Met Asn Pro
      50      55      60
Thr Asn Thr Ile Phe Asp Ala Lys Arg Leu Ile Gly Arg Lys Phe Glu
      65      70      75      80
Asp Ala Thr Val Gln Ser Asp Met Lys His Trp Pro Phe Arg Val Val
      85      90      95
Ser Glu Gly Gly Lys Pro Lys Val Gln Val Glu Tyr Lys Gly Glu Thr
      100      105      110
Lys Thr Phe Phe Pro Glu Glu Ile Ser Ser Met Val Leu Thr Lys Met
      115      120      125
Lys Glu Ile Ala Glu Ala Tyr Phe Asn Asp Ser Gln Arg Gln Ala Thr Lys
      130      135      140
Ile Thr Val Pro Ala Tyr Phe Asn Asp Ser Gln Arg Gln Ala Thr Lys
      145      150      155      160
Asp Ala Gly Thr Ile Thr Gly Leu Asn Val Leu Arg Ile Ile Asn Glu
      165      170      175
Pro Thr Ala Ala Ala Ile Ala Tyr Gly Leu Asp Lys Lys Gly Cys Ala
      180      185      190
Gly Gly Glu Lys Asn Val Leu Ile Phe Asp Leu Gly Gly Thr Phe
      195      200      205
Asp Val Ser Ile Leu Thr Ile Glu Asp Gly Ile Phe Glu Val Lys Ser
      210      215      220
Thr Ala Gly Asp Thr His Leu Gly Gly Glu Asp Phe Asp Asn Arg Met
      225      230      235      240
Val Ser His Leu Ala Glu Glu Phe Lys Arg Lys His Lys Lys Asp Ile
      245      250      255
Gly Pro Asn Lys Arg Ala Val Arg Arg Leu Arg Thr Ala Cys Glu Arg
      260      265      270
Ala Lys Arg Thr Leu Ser Ser Ser Thr Gln Ala Ser Ile Glu Ile Asp
      275      280      285
Ser Leu Tyr Glu Gly Val Asp Phe Tyr Thr Ser Ile Thr Arg Ala Arg
      290      295      300
Phe Glu Glu Leu Asn Ala Asp Leu Phe Arg Gly Thr Leu Glu Pro Val
      305      310      315      320
Glu Lys Ala Leu Arg Asp Ala Lys Leu Asp Lys Gly Gln Ile Gln Glu
      325      330      335
Ile Val Leu Val Gly Gly Ser Thr Arg Ile Pro Lys Ile Gln Lys Leu
      340      345      350
Leu Gln Asp Phe Phe Asn Gly Lys Glu Leu Asn Lys Ser Ile Asn Pro
      355      360      365

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Asp Glu Ala Val Ala Tyr Gly Ala Ala Val Gln Ala Ala Ile Leu Ile
 370 375 380
 Gly Asp Lys Ser Glu Asn Val Gln Asp Leu Leu Leu Asp Val Thr
 385 390 395 400
 Pro Leu Ser Leu Gly Ile Glu Thr Ala Gly Gly Val Met Thr Pro Leu
 405 410 415
 Ile Lys Arg Asn Thr Thr Ile Pro Thr Lys Gln Thr Gln Thr Phe Thr
 420 425 430
 Thr Tyr Ser Asp Asn Gln Ser Ser Val Leu Val Gln Val Tyr Glu Gly
 435 440 445
 Glu Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Lys Phe Asp Leu
 450 455 460
 Thr Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val Thr
 465 470 475 480
 Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Thr Ala Ala Asp Lys
 485 490 495
 Ser Thr Gly Lys Glu Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly Arg
 500 505 510
 Leu Ser Lys Asp Asp Ile Asp Arg Met Val Gln Glu Ala Glu Arg Tyr
 515 520 525
 Lys Ser Glu Asp Glu Ala Asn Arg Asp Arg Val Ala Ala Lys Asn Ala
 530 535 540
 Leu Glu Ser Tyr Thr Tyr Asn Ile Lys Gln Thr Val Glu Asp Glu Lys
 545 550 555 560
 Leu Arg Gly Lys Ile Ser Glu Gln Asp Lys Asn Lys Ile Leu Asp Lys
 565 570 575
 Cys Gln Glu Val Ile Asn Trp Leu Asp Arg Asn Gln Met Ala Glu Lys
 580 585 590
 Asp Glu Tyr Glu His Lys Gln Lys Glu Leu Glu Arg Val Cys Asn Pro
 595 600 605
 Ile Ile Ser Lys Leu Tyr Gln Gly Gly Pro Gly Gly Ser Gly Gly
 610 615 620
 Gly Gly Ser Gly Ala Ser Gly Gly Pro Thr Ile Glu Glu Val Asp
 625 630 635

<210> 254

<211> 1094

<212> PRT

<213> Homo sapiens

<400> 254

Met Ala Arg Pro Val Arg Gly Gly Leu Gly Ala Pro Arg Arg Ser Pro
 1 5 10 15
 Cys Leu Leu Leu Leu Trp Leu Leu Leu Arg Leu Glu Pro Val Thr
 20 25 30
 Ala Ala Ala Gly Pro Arg Ala Pro Cys Ala Ala Ala Cys Thr Cys Ala
 35 40 45
 Gly Asp Ser Leu Asp Cys Gly Gly Arg Gly Leu Ala Ala Leu Pro Gly
 50 55 60
 Asp Leu Pro Ser Trp Thr Arg Ser Leu Asn Leu Ser Tyr Asn Lys Leu
 65 70 75 80
 Ser Glu Ile Asp Pro Ala Gly Phe Glu Asp Leu Pro Asn Leu Gln Glu
 85 90 95
 Val Tyr Leu Asn Asn Asn Glu Leu Thr Ala Val Pro Ser Leu Gly Ala
 100 105 110
 Ala Ser Ser His Val Val Ser Leu Phe Leu Gln His Asn Lys Ile Arg
 115 120 125
 Ser Val Glu Gly Ser Gln Leu Lys Ala Tyr Leu Ser Leu Glu Val Leu
 130 135 140
 Asp Leu Ser Leu Asn Asn Ile Thr Glu Val Arg Asn Thr Cys Phe Pro
 145 150 155 160
 His Gly Pro Pro Ile Lys Glu Leu Asn Leu Ala Gly Asn Arg Ile Gly
 165 170 175
 Thr Leu Glu Leu Gly Ala Phe Asp Gly Leu Ser Arg Ser Leu Leu Thr
 180 185 190
 Leu Arg Leu Ser Lys Asn Arg Ile Thr Gln Leu Pro Val Arg Ala Phe
 195 200 205
 Lys Leu Pro Arg Leu Thr Gln Leu Asp Leu Asn Arg Asn Arg Ile Arg
 210 215 220
 Leu Ile Glu Gly Leu Thr Phe Gln Gly Leu Asn Ser Leu Glu Val Leu

225					230					235				240
Lys	Leu	Gln	Arg	Asn	Asn	Ile	Ser	Lys	Leu	Thr	Asp	Gly	Ala	Phe
				245					250					255
Gly	Leu	Ser	Lys	Met	His	Val	Leu	His	Leu	Glu	Tyr	Asn	Ser	Leu
			260					265					270	Val
Glu	Val	Asn	Ser	Gly	Ser	Leu	Tyr	Gly	Leu	Thr	Ala	Leu	His	Gln
		275					280				285			Leu
His	Leu	Ser	Asn	Asn	Ser	Ile	Ala	Arg	Ile	His	Arg	Lys	Gly	Trp
	290					295				300				Ser
Phe	Cys	Gln	Lys	Leu	His	Glu	Leu	Val	Leu	Ser	Phe	Asn	Asn	Leu
305					310				315					320
Arg	Leu	Asp	Glu	Glu	Ser	Leu	Ala	Glu	Leu	Ser	Ser	Leu	Ser	Val
			325					330						335
Arg	Leu	Ser	His	Asn	Ser	Ile	Ser	His	Ile	Ala	Glu	Gly	Ala	Phe
		340					345					350		Lys
Gly	Leu	Arg	Ser	Leu	Arg	Val	Leu	Asp	Leu	Asp	His	Asn	Glu	Ile
	355					360					365			Ser
Gly	Thr	Ile	Glu	Asp	Thr	Ser	Gly	Ala	Phe	Ser	Gly	Leu	Asp	Ser
	370				375					380				Leu
Ser	Lys	Leu	Thr	Leu	Phe	Gly	Asn	Lys	Ile	Lys	Ser	Val	Ala	Lys
385					390				395					Arg
Ala	Phe	Ser	Gly	Leu	Glu	Gly	Leu	Glu	His	Leu	Asn	Leu	Gly	Gly
			405					410					415	Asn
Ala	Ile	Arg	Ser	Val	Gln	Phe	Asp	Ala	Phe	Val	Lys	Met	Lys	Asn
		420					425					430		Leu
Lys	Glu	Leu	His	Ile	Ser	Ser	Asp	Ser	Phe	Leu	Cys	Asp	Cys	Gln
	435					440					445			Leu
Lys	Trp	Leu	Pro	Pro	Trp	Leu	Ile	Gly	Arg	Met	Leu	Gln	Ala	Phe
	450				455					460				Val
Thr	Ala	Thr	Cys	Ala	His	Pro	Glu	Ser	Leu	Lys	Gly	Gln	Ser	Ile
465					470				475					Phe
Ser	Val	Pro	Pro	Glu	Ser	Phe	Val	Cys	Asp	Asp	Phe	Leu	Lys	Pro
			485					490					495	Gln
Ile	Ile	Thr	Gln	Pro	Glu	Thr	Thr	Met	Ala	Met	Val	Gly	Lys	Asp
		500					505					510		Ile
Arg	Phe	Thr	Cys	Ser	Ala	Ala	Ser	Ser	Ser	Ser	Ser	Pro	Met	Thr
	515					520					525			Phe
Ala	Trp	Lys	Lys	Asp	Asn	Glu	Val	Leu	Thr	Asn	Ala	Asp	Met	Glu
	530				535					540				Asn
Phe	Val	His	Val	His	Ala	Gln	Asp	Gly	Glu	Val	Met	Glu	Tyr	Thr
545					550				555					Thr
Ile	Leu	His	Leu	Arg	Gln	Val	Thr	Phe	Gly	His	Glu	Gly	Arg	Tyr
			565					570					575	Gln
Cys	Val	Ile	Thr	Asn	His	Phe	Gly	Ser	Thr	Tyr	Ser	His	Lys	Ala
		580					585					590		Arg
Leu	Thr	Val	Asn	Val	Leu	Pro	Ser	Phe	Thr	Lys	Thr	Pro	His	Asp
	595					600					605			Ile
Thr	Ile	Arg	Thr	Thr	Thr	Met	Ala	Arg	Leu	Glu	Cys	Ala	Ala	Thr
	610				615						620			Gly
His	Pro	Asn	Pro	Gln	Ile	Ala	Trp	Gln	Lys	Asp	Gly	Gly	Thr	Asp
625					630				635					Phe
Pro	Ala	Ala	Arg	Glu	Arg	Arg	Met	His	Val	Met	Pro	Asp	Asp	Val
			645					650					655	
Phe	Phe	Ile	Thr	Asp	Val	Lys	Ile	Asp	Asp	Ala	Gly	Val	Tyr	Ser
	660						665					670		Cys
Thr	Ala	Gln	Asn	Ser	Ala	Gly	Ser	Ile	Ser	Ala	Asn	Ala	Thr	Leu
	675					680					685			Thr
Val	Leu	Glu	Thr	Pro	Ser	Leu	Val	Val	Pro	Leu	Glu	Asp	Arg	Val
	690				695					700				Val
Ser	Val	Gly	Glu	Thr	Val	Ala	Leu	Gln	Cys	Lys	Ala	Thr	Gly	Asn
705					710					715				Pro
Pro	Pro	Arg	Ile	Thr	Trp	Phe	Lys	Gly	Asp	Arg	Pro	Leu	Ser	Leu
			725					730					735	Thr
Glu	Arg	His	His	Leu	Thr	Pro	Asp	Asn	Gln	Leu	Leu	Val	Val	Gln
		740					745					750		Asn
Val	Val	Ala	Glu	Asp	Ala	Gly	Arg	Tyr	Thr	Cys	Glu	Met	Ser	Asn
	755					760					765			Thr
Leu	Gly	Thr	Glu	Arg	Ala	His	Ser	Gln	Leu	Ser	Val	Leu	Pro	Ala
	770				775					780				Ala

Gly Cys Arg Lys Asp Gly Thr Thr Val Gly Ile Phe Thr Ile Ala Val
 785 790 795 800
 Val Ser Ser Ile Val Leu Thr Ser Leu Val Trp Val Cys Ile Ile Tyr
 805 810 815
 Gln Thr Arg Lys Lys Ser Glu Glu Tyr Ser Val Thr Asn Thr Asp Glu
 820 825 830
 Thr Val Val Pro Pro Asp Val Pro Ser Tyr Leu Ser Ser Gln Gly Thr
 835 840 845
 Leu Ser Asp Arg Gln Glu Thr Val Val Arg Thr Glu Gly Ala Gly Pro
 850 855 860
 Gln Ala Asn Gly His Ile Glu Ser Asn Gly Val Cys Pro Arg Asp Ala
 865 870 875 880
 Ser His Phe Pro Glu Pro Asp Thr His Ser Val Ala Cys Arg Gln Pro
 885 890 895
 Lys Leu Cys Ala Gly Ser Ala Tyr His Lys Glu Pro Trp Lys Ala Ile
 900 905 910
 Glu Lys Ala Glu Gly Thr Pro Gly Pro His Lys Met Glu His Gly Gly
 915 920 925
 Arg Val Val Cys Ser Asp Cys Asn Thr Glu Val Asp Cys Tyr Ser Arg
 930 935 940
 Gly Gln Ala Phe His Pro Gln Pro Val Ser Arg Asp Ser Ala Gln Pro
 945 950 955 960
 Ser Ala Pro Asn Gly Pro Glu Pro Gly Gly Ser Asp Gln Glu His Ser
 965 970 975
 Pro His His Gln Cys Ser Arg Thr Ala Ala Gly Ser Cys Pro Glu Cys
 980 985 990
 Gln Gly Ser Leu Tyr Pro Ser Asn His Asp Arg Met Leu Thr Ala Val
 995 1000 1005
 Lys Lys Lys Pro Met Ala Ser Leu Asp Gly Lys Gly Asp Ser Ser
 1010 1015 1020
 Trp Thr Leu Ala Arg Leu Tyr His Pro Asp Ser Thr Glu Leu Gln
 1025 1030 1035
 Pro Ala Ser Ser Leu Thr Ser Gly Ser Pro Glu Arg Ala Glu Ala
 1040 1045 1050
 Gln Tyr Leu Leu Val Ser Asn Gly His Leu Pro Lys Ala Cys Asp
 1055 1060 1065
 Ala Ser Pro Glu Ser Thr Pro Leu Thr Gly Gln Leu Pro Gly Lys
 1070 1075 1080
 Gln Arg Val Pro Leu Leu Leu Ala Pro Lys Ser
 1085 1090

<210> 255

<211> 474

<212> PRT

<213> Homo sapiens

<400> 255

Met Ala Thr Asn Trp Gly Ser Leu Leu Gln Asp Lys Gln Gln Leu Glu
 1 5 10 15
 Glu Leu Ala Arg Gln Ala Val Asp Arg Ala Leu Ala Glu Gly Val Leu
 20 25 30
 Leu Arg Thr Ser Gln Glu Pro Thr Ser Ser Glu Val Val Ser Tyr Ala
 35 40 45
 Pro Phe Thr Leu Phe Pro Ser Leu Val Pro Ser Ala Leu Leu Glu Gln
 50 55 60
 Ala Tyr Ala Val Gln Met Asp Phe Asn Leu Leu Val Asp Ala Val Ser
 65 70 75 80
 Gln Asn Ala Ala Phe Leu Glu Gln Thr Leu Ser Ser Thr Ile Lys Gln
 85 90 95
 Asp Asp Phe Thr Ala Arg Leu Phe Asp Ile His Lys Gln Val Leu Lys
 100 105 110
 Glu Gly Ile Ala Gln Thr Val Phe Leu Gly Leu Asn Arg Ser Asp Tyr
 115 120 125
 Met Phe Gln Arg Ser Ala Asp Gly Ser Pro Ala Leu Lys Gln Ile Glu
 130 135 140
 Ile Asn Thr Ile Ser Ala Ser Phe Gly Gly Leu Ala Ser Arg Thr Pro
 145 150 155 160
 Ala Val His Arg His Val Leu Ser Val Leu Ser Lys Thr Lys Glu Ala
 165 170 175
 Gly Lys Ile Leu Ser Asn Asn Pro Ser Lys Gly Leu Ala Leu Gly Ile

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      180      185      190
Ala Lys Ala Trp Glu Leu Tyr Gly Ser Pro Asn Ala Leu Val Leu Leu
      195      200      205
Ile Ala Gln Glu Lys Glu Arg Asn Ile Phe Asp Gln Arg Ala Ile Glu
      210      215      220
Asn Glu Leu Leu Ala Arg Asn Ile His Val Ile Arg Arg Thr Phe Glu
      225      230      235
Asp Ile Ser Glu Lys Gly Ser Leu Asp Gln Asp Arg Arg Leu Phe Val
      245      250      255
Asp Gly Gln Glu Ile Ala Val Val Tyr Phe Arg Asp Gly Tyr Met Pro
      260      265      270
Arg Gln Tyr Ser Leu Gln Asn Trp Glu Ala Arg Leu Leu Glu Arg
      275      280      285
Ser His Ala Ala Lys Cys Pro Asp Ile Ala Thr Gln Leu Ala Gly Thr
      290      295      300
Lys Lys Val Gln Gln Glu Leu Ser Arg Pro Gly Met Leu Glu Met Leu
      305      310      315
Leu Pro Gly Gln Pro Glu Ala Val Ala Arg Leu Arg Ala Thr Phe Ala
      325      330      335
Gly Leu Tyr Ser Leu Asp Val Gly Glu Glu Gly Asp Gln Ala Ile Ala
      340      345      350
Glu Ala Leu Ala Ala Pro Ser Arg Phe Val Leu Lys Pro Gln Arg Glu
      355      360      365
Gly Gly Gly Asn Asn Leu Tyr Gly Glu Glu Met Val Gln Ala Leu Lys
      370      375      380
Gln Leu Lys Asp Ser Glu Glu Arg Ala Ser Tyr Ile Leu Met Glu Lys
      385      390      395
Ile Glu Pro Glu Pro Phe Glu Asn Cys Leu Leu Arg Pro Gly Ser Pro
      405      410      415
Ala Arg Val Val Gln Cys Ile Ser Glu Leu Gly Ile Phe Gly Val Tyr
      420      425      430
Val Arg Gln Glu Lys Thr Leu Val Met Asn Lys His Val Gly His Leu
      435      440      445
Leu Arg Thr Lys Ala Ile Glu His Ala Asp Gly Gly Val Ala Ala Gly
      450      455      460
Val Ala Val Leu Asp Asn Pro Tyr Pro Val
      465      470

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<210> 256

<211> 96

<212> PRT

<213> Homo sapiens

<400> 256

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Met Trp Ile Tyr Ser Lys Leu Ser Lys Arg Thr Val Phe Arg Lys Gly
1      5      10      15
Lys Thr Arg Thr Gln Lys Thr Leu Gly Ile Thr Thr Thr Pro Lys Cys
      20      25      30
Phe Arg Leu Gln Glu Ile Thr Ile His Val Phe Ala Gly Gly His Thr
      35      40      45
Ile Phe Pro Tyr Tyr Leu Val Gln Asn Asp Ser Ser Leu Pro Lys Ser
      50      55      60
Phe Phe Ser Asn His Asp Phe Pro Ile Tyr Phe Gly Pro Met Gln Ser
      65      70      75      80
His Ser Leu Trp Pro Ile Val Ser Leu Pro Thr Thr Pro Leu Gly Gly
      85      90      95

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<210> 257

<211> 3256

<212> PRT

<213> Homo sapiens

<400> 257

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Met Trp Pro Thr Arg Arg Leu Val Thr Ile Lys Arg Ser Gly Val Asp
1      5      10      15
Gly Pro His Phe Pro Leu Ser Leu Ser Thr Cys Leu Phe Gly Arg Gly
      20      25      30
Ile Glu Cys Asp Ile Arg Ile Gln Leu Pro Val Val Ser Lys Gln His
      35      40      45
Cys Lys Ile Glu Ile His Glu Gln Glu Ala Ile Leu His Asn Phe Ser
      50      55      60

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Ser	Thr	Asn	Pro	Thr	Gln	Val	Asn	Gly	Ser	Val	Ile	Asp	Glu	Pro	Val
65					70					75					80
Arg	Leu	Lys	His	Gly	Asp	Val	Ile	Thr	Ile	Ile	Asp	Arg	Ser	Phe	Arg
				85					90					95	
Tyr	Glu	Asn	Glu	Ser	Leu	Gln	Asn	Gly	Arg	Lys	Ser	Thr	Glu	Phe	Pro
		100						105					110		
Arg	Lys	Ile	Arg	Glu	Gln	Glu	Pro	Ala	Arg	Arg	Val	Ser	Arg	Ser	Ser
		115					120					125			
Phe	Ser	Ser	Asp	Pro	Asp	Glu	Lys	Ala	Gln	Asp	Ser	Lys	Ala	Tyr	Ser
	130					135					140				
Lys	Ile	Thr	Glu	Gly	Lys	Val	Ser	Gly	Asn	Pro	Gln	Val	His	Ile	Lys
145					150				155						160
Asn	Val	Lys	Glu	Asp	Ser	Thr	Ala	Asp	Asp	Ser	Lys	Asp	Ser	Val	Ala
				165					170					175	
Gln	Gly	Thr	Thr	Asn	Val	His	Ser	Ser	Glu	His	Ala	Gly	Arg	Asn	Gly
		180						185					190		
Arg	Asn	Ala	Ala	Asp	Pro	Ile	Ser	Gly	Asp	Phe	Lys	Glu	Ile	Ser	Ser
	195					200						205			
Val	Lys	Leu	Val	Ser	Arg	Tyr	Gly	Glu	Leu	Lys	Ser	Val	Pro	Thr	Thr
	210					215					220				
Gln	Cys	Leu	Asp	Asn	Ser	Lys	Lys	Asn	Glu	Ser	Pro	Phe	Trp	Lys	Leu
225				230					235						240
Tyr	Glu	Ser	Val	Lys	Lys	Glu	Leu	Asp	Val	Lys	Ser	Gln	Lys	Glu	Asn
				245					250					255	
Val	Leu	Gln	Tyr	Cys	Arg	Lys	Ser	Gly	Leu	Gln	Thr	Asp	Tyr	Ala	Thr
	260							265					270		
Glu	Lys	Glu	Ser	Ala	Asp	Gly	Leu	Gln	Gly	Glu	Thr	Gln	Leu	Leu	Val
	275						280					285			
Ser	Arg	Lys	Ser	Arg	Pro	Lys	Ser	Gly	Gly	Ser	Gly	His	Ala	Val	Ala
	290					295					300				
Glu	Pro	Ala	Ser	Pro	Glu	Gln	Glu	Leu	Asp	Gln	Asn	Lys	Gly	Lys	Gly
305					310					315					320
Arg	Asp	Val	Glu	Ser	Val	Gln	Thr	Pro	Ser	Lys	Ala	Val	Gly	Ala	Ser
				325					330					335	
Phe	Pro	Leu	Tyr	Glu	Pro	Ala	Lys	Met	Lys	Thr	Pro	Val	Gln	Tyr	Ser
		340						345					350		
Gln	Gln	Gln	Asn	Ser	Pro	Gln	Lys	His	Lys	Asn	Lys	Asp	Leu	Tyr	Thr
		355					360					365			
Thr	Gly	Arg	Arg	Glu	Ser	Val	Asn	Leu	Gly	Lys	Ser	Glu	Gly	Phe	Lys
	370					375					380				
Ala	Gly	Asp	Lys	Thr	Leu	Thr	Pro	Arg	Lys	Leu	Ser	Thr	Arg	Asn	Arg
385					390					395					400
Thr	Pro	Ala	Lys	Val	Glu	Asp	Ala	Ala	Asp	Ser	Ala	Thr	Lys	Pro	Glu
				405					410					415	
Asn	Leu	Ser	Ser	Lys	Thr	Arg	Gly	Ser	Ile	Pro	Thr	Asp	Val	Glu	Val
		420						425					430		
Leu	Pro	Thr	Glu	Thr	Glu	Ile	His	Asn	Glu	Pro	Phe	Leu	Thr	Leu	Trp
		435					440					445			
Leu	Thr	Gln	Val	Glu	Arg	Lys	Ile	Gln	Lys	Asp	Ser	Leu	Ser	Lys	Pro
	450					455					460				
Glu	Lys	Leu	Gly	Thr	Thr	Ala	Gly	Gln	Met	Cys	Ser	Gly	Leu	Pro	Gly
465					470				475						480
Leu	Ser	Ser	Val	Asp	Ile	Asn	Asn	Phe	Gly	Asp	Ser	Ile	Asn	Glu	Ser
				485					490				495		
Glu	Gly	Ile	Pro	Leu	Lys	Arg	Arg	Arg	Val	Ser	Phe	Gly	Gly	His	Leu
		500						505					510		
Arg	Pro	Glu	Leu	Phe	Asp	Glu	Asn	Leu	Pro	Pro	Asn	Thr	Pro	Leu	Lys
		515					520					525			
Arg	Gly	Glu	Ala	Pro	Thr	Lys	Arg	Lys	Ser	Leu	Val	Met	His	Thr	Pro
	530					535						540			
Pro	Val	Leu	Lys	Lys	Ile	Ile	Lys	Glu	Gln	Pro	Gln	Pro	Ser	Gly	Lys
545					550				555						560
Gln	Glu	Ser	Gly	Ser	Glu	Ile	His	Val	Glu	Val	Lys	Ala	Gln	Ser	Leu
				565					570					575	
Val	Ile	Ser	Pro	Pro	Ala	Pro	Ser	Pro	Arg	Lys	Thr	Pro	Val	Ala	Ser
		580						585					590		
Asp	Gln	Arg	Arg	Arg	Ser	Cys	Lys	Thr	Ala	Pro	Ala	Ser	Ser	Ser	Lys
		595					600					605			
Ser	Gln	Thr	Glu	Val	Pro	Lys	Arg	Gly	Gly	Glu	Arg	Val	Ala	Thr	Cys

610	615	620
Leu Gln Lys Arg Val Ser Ile Ser Arg Ser Gln His Asp Ile Leu Gln		
625	630	635
Met Ile Cys Ser Lys Arg Arg Ser Gly Ala Ser Glu Ala Asn Leu Ile		
	645	650
Val Ala Lys Ser Trp Ala Asp Val Val Lys Leu Gly Ala Lys Gln Thr		
	660	665
Gln Thr Lys Val Ile Lys His Gly Pro Gln Arg Ser Met Asn Lys Arg		
	675	680
Gln Arg Arg Pro Ala Thr Pro Lys Lys Pro Val Gly Glu Val His Ser		
	690	695
Gln Phe Ser Thr Gly His Ala Asn Ser Pro Cys Thr Ile Ile Ile Gly		
705	710	715
Lys Ala His Thr Glu Lys Val His Val Pro Ala Arg Pro Tyr Arg Val		
	725	730
Leu Asn Asn Phe Ile Ser Asn Gln Lys Met Asp Phe Lys Glu Asp Leu		
	740	745
Ser Gly Ile Ala Glu Met Phe Lys Thr Pro Val Lys Glu Gln Pro Gln		
	755	760
Leu Thr Ser Thr Cys His Ile Ala Ile Ser Asn Ser Glu Asn Leu Leu		
770	775	780
Gly Lys Gln Phe Gln Gly Thr Asp Ser Gly Glu Glu Pro Leu Leu Pro		
785	790	795
Thr Ser Glu Ser Phe Gly Gly Asn Val Phe Phe Ser Ala Gln Asn Ala		
	805	810
Ala Lys Gln Pro Ser Asp Lys Cys Ser Ala Ser Pro Pro Leu Arg Arg		
	820	825
Gln Cys Ile Arg Glu Asn Gly Asn Val Ala Lys Thr Pro Arg Asn Thr		
	835	840
Tyr Lys Met Thr Ser Leu Glu Thr Lys Thr Ser Asp Thr Glu Thr Glu		
850	855	860
Pro Ser Lys Thr Val Ser Thr Val Asn Arg Ser Gly Arg Ser Thr Glu		
865	870	875
Phe Arg Asn Ile Gln Lys Leu Pro Val Glu Ser Lys Ser Glu Glu Thr		
	885	890
Asn Thr Glu Ile Val Glu Cys Ile Leu Lys Arg Gly Gln Lys Ala Thr		
	900	905
Leu Leu Gln Gln Arg Arg Glu Gly Glu Met Lys Glu Ile Glu Arg Pro		
	915	920
Phe Glu Thr Tyr Lys Glu Asn Ile Glu Leu Lys Glu Asn Asp Glu Lys		
930	935	940
Met Lys Ala Met Lys Arg Ser Arg Thr Trp Gly Gln Lys Cys Ala Pro		
945	950	955
Met Ser Asp Leu Thr Asp Leu Lys Ser Leu Pro Asp Thr Glu Leu Met		
	965	970
Lys Asp Thr Ala Arg Gly Gln Asn Leu Leu Gln Thr Gln Asp His Ala		
	980	985
Lys Ala Pro Lys Ser Glu Lys Gly Lys Ile Thr Lys Met Pro Cys Gln		
995	1000	1005
Ser Leu Gln Pro Glu Pro Ile Asn Thr Pro Thr His Thr Lys Gln		
1010	1015	1020
Gln Leu Lys Ala Ser Leu Gly Lys Val Gly Val Lys Glu Glu Leu		
1025	1030	1035
Leu Ala Val Gly Lys Phe Thr Arg Thr Ser Gly Glu Thr Thr His		
1040	1045	1050
Thr His Arg Glu Pro Ala Gly Asp Gly Lys Ser Ile Arg Thr Phe		
1055	1060	1065
Lys Glu Ser Pro Lys Gln Ile Leu Asp Pro Ala Ala Arg Val Thr		
1070	1075	1080
Gly Met Lys Lys Trp Pro Arg Thr Pro Lys Glu Glu Ala Gln Ser		
1085	1090	1095
Leu Glu Asp Leu Ala Gly Phe Lys Glu Leu Phe Gln Thr Pro Gly		
1100	1105	1110
Pro Ser Glu Glu Ser Met Thr Asp Glu Lys Thr Thr Lys Ile Ala		
1115	1120	1125
Cys Lys Ser Pro Pro Pro Glu Ser Val Asp Thr Pro Thr Ser Thr		
1130	1135	1140
Lys Gln Trp Pro Lys Arg Ser Leu Arg Lys Ala Asp Val Glu Glu		
1145	1150	1155

Glu	Phe	Leu	Ala	Leu	Arg	Lys	Leu	Thr	Pro	Ser	Ala	Gly	Lys	Ala
1160						1165					1170			
Met	Leu	Thr	Pro	Lys	Pro	Ala	Gly	Gly	Asp	Glu	Lys	Asp	Ile	Lys
1175						1180					1185			
Ala	Phe	Met	Gly	Thr	Pro	Val	Gln	Lys	Leu	Asp	Leu	Ala	Gly	Thr
1190						1195					1200			
Leu	Pro	Gly	Ser	Lys	Arg	Gln	Leu	Gln	Thr	Pro	Lys	Glu	Lys	Ala
1205						1210					1215			
Gln	Ala	Leu	Glu	Asp	Leu	Ala	Gly	Phe	Lys	Glu	Leu	Phe	Gln	Thr
1220						1225					1230			
Pro	Gly	His	Thr	Glu	Glu	Leu	Val	Ala	Ala	Gly	Lys	Thr	Thr	Lys
1235						1240					1245			
Ile	Pro	Cys	Asp	Ser	Pro	Gln	Ser	Asp	Pro	Val	Asp	Thr	Pro	Thr
1250						1255					1260			
Ser	Thr	Lys	Gln	Arg	Pro	Lys	Arg	Ser	Ile	Arg	Lys	Ala	Asp	Val
1265						1270					1275			
Glu	Gly	Glu	Leu	Leu	Ala	Cys	Arg	Asn	Leu	Met	Pro	Ser	Ala	Gly
1280						1285					1290			
Lys	Ala	Met	His	Thr	Pro	Lys	Pro	Ser	Val	Gly	Glu	Glu	Lys	Asp
1295						1300					1305			
Ile	Ile	Ile	Phe	Val	Gly	Thr	Pro	Val	Gln	Lys	Leu	Asp	Leu	Thr
1310						1315					1320			
Glu	Asn	Leu	Thr	Gly	Ser	Lys	Arg	Arg	Pro	Gln	Thr	Pro	Lys	Glu
1325						1330					1335			
Glu	Ala	Gln	Ala	Leu	Glu	Asp	Leu	Thr	Gly	Phe	Lys	Glu	Leu	Phe
1340						1345					1350			
Gln	Thr	Pro	Gly	His	Thr	Glu	Glu	Ala	Val	Ala	Ala	Gly	Lys	Thr
1355						1360					1365			
Thr	Lys	Met	Pro	Cys	Glu	Ser	Ser	Pro	Pro	Glu	Ser	Ala	Asp	Thr
1370						1375					1380			
Pro	Thr	Ser	Thr	Arg	Arg	Gln	Pro	Lys	Thr	Pro	Leu	Glu	Lys	Arg
1385						1390					1395			
Asp	Val	Gln	Lys	Glu	Leu	Ser	Ala	Leu	Lys	Lys	Leu	Thr	Gln	Thr
1400						1405					1410			
Ser	Gly	Glu	Thr	Thr	His	Thr	Asp	Lys	Val	Pro	Gly	Gly	Glu	Asp
1415						1420					1425			
Lys	Ser	Ile	Asn	Ala	Phe	Arg	Glu	Thr	Ala	Lys	Gln	Lys	Leu	Asp
1430						1435					1440			
Pro	Ala	Ala	Ser	Val	Thr	Gly	Ser	Lys	Arg	His	Pro	Lys	Thr	Lys
1445						1450					1455			
Glu	Lys	Ala	Gln	Pro	Leu	Glu	Asp	Leu	Ala	Gly	Trp	Lys	Glu	Leu
1460						1465					1470			
Phe	Gln	Thr	Pro	Val	Cys	Thr	Asp	Lys	Pro	Thr	Thr	His	Glu	Lys
1475						1480					1485			
Thr	Thr	Lys	Ile	Ala	Cys	Arg	Ser	Gln	Pro	Asp	Pro	Val	Asp	Thr
1490						1495					1500			
Pro	Thr	Ser	Ser	Lys	Pro	Gln	Ser	Lys	Arg	Ser	Leu	Arg	Lys	Val
1505						1510					1515			
Asp	Val	Glu	Glu	Glu	Phe	Phe	Ala	Leu	Arg	Lys	Arg	Thr	Pro	Ser
1520						1525					1530			
Ala	Gly	Lys	Ala	Met	His	Thr	Pro	Lys	Pro	Ala	Val	Ser	Gly	Glu
1535						1540					1545			
Lys	Asn	Ile	Tyr	Ala	Phe	Met	Gly	Thr	Pro	Val	Gln	Lys	Leu	Asp
1550						1555					1560			
Leu	Thr	Glu	Asn	Leu	Thr	Gly	Ser	Lys	Arg	Arg	Leu	Gln	Thr	Pro
1565						1570					1575			
Lys	Glu	Lys	Ala	Gln	Ala	Leu	Glu	Asp	Leu	Ala	Gly	Phe	Lys	Glu
1580						1585					1590			
Leu	Phe	Gln	Thr	Arg	Gly	His	Thr	Glu	Glu	Ser	Met	Thr	Asn	Asp
1595						1600					1605			
Lys	Thr	Ala	Lys	Val	Ala	Cys	Lys	Ser	Ser	Gln	Pro	Asp	Leu	Asp
1610						1615					1620			
Lys	Asn	Pro	Ala	Ser	Ser	Lys	Arg	Arg	Leu	Lys	Thr	Ser	Leu	Gly
1625						1630					1635			
Lys	Val	Gly	Val	Lys	Glu	Glu	Leu	Leu	Ala	Val	Gly	Lys	Leu	Thr
1640						1645					1650			
Gln	Thr	Ser	Gly	Glu	Thr	Thr	His	Thr	His	Thr	Glu	Pro	Thr	Gly
1655						1660					1665			
Asp	Gly	Lys	Ser	Met	Lys	Ala	Phe	Met	Glu	Ser	Pro	Lys	Gln	Ile

1670	Leu Asp Ser Ala Ala Ser	1675	Leu Thr Gly Ser Lys	1680	Arg Gln Leu Arg
1685	Thr Pro Lys Gly Lys Ser	1690	Glu Val Pro Glu Asp	1695	Leu Ala Gly Phe
1700	Ile Glu Leu Phe Gln Thr	1705	Pro Ser His Thr Lys	1710	Glu Ser Met Thr
1715	Asn Glu Lys Thr Thr Lys	1720	Val Ser Tyr Arg Ala	1725	Ser Gln Pro Asp
1730	Leu Val Asp Thr Pro Thr	1735	Ser Ser Lys Pro Gln	1740	Pro Lys Arg Ser
1745	Leu Arg Lys Ala Asp Thr	1750	Glu Glu Phe Leu Ala	1755	Phe Arg Lys
1760	Gln Thr Pro Ser Ala Gly	1765	Lys Ala Met His Thr	1770	Pro Lys Pro Ala
1775	Val Gly Glu Glu Lys Asp	1780	Ile Asn Thr Phe Leu	1785	Gly Thr Pro Val
1790	Gln Lys Leu Asp Gln Pro	1795	Gly Asn Leu Pro Gly	1800	Ser Asn Arg Arg
1805	Leu Gln Thr Arg Lys Glu	1810	Lys Ala Gln Ala Leu	1815	Glu Glu Leu Thr
1820	Gly Phe Arg Glu Leu Phe	1825	Gln Thr Pro Cys Thr	1830	Asp Asn Pro Thr
1835	Ala Asp Glu Lys Thr Thr	1840	Lys Lys Ile Leu Cys	1845	Lys Ser Pro Gln
1850	Ser Asp Pro Ala Asp Thr	1855	Pro Thr Asn Thr Lys	1860	Gln Arg Pro Lys
1865	Arg Ser Leu Lys Lys Ala	1870	Asp Val Glu Glu Glu	1875	Phe Leu Ala Phe
1880	Arg Lys Leu Thr Pro Ser	1885	Ala Gly Lys Ala Met	1890	His Thr Pro Lys
1895	Ala Ala Val Gly Glu Glu	1900	Lys Asp Ile Asn Thr	1905	Phe Val Gly Thr
1910	Pro Val Glu Lys Leu Asp	1915	Leu Leu Gly Asn Leu	1920	Pro Gly Ser Lys
1925	Arg Arg Pro Gln Thr Pro	1930	Lys Glu Lys Ala Lys	1935	Ala Leu Glu Asp
1940	Leu Ala Gly Phe Lys Glu	1945	Leu Phe Gln Thr Pro	1950	Gly His Thr Glu
1955	Glu Ser Met Thr Asp Asp	1960	Lys Ile Thr Glu Val	1965	Ser Cys Lys Ser
1970	Pro Gln Pro Asp Pro Val	1975	Lys Thr Pro Thr Ser	1980	Ser Lys Gln Arg
1985	Leu Lys Ile Ser Leu Gly	1990	Lys Val Gly Val Lys	1995	Glu Glu Val Leu
2000	Pro Val Gly Lys Leu Thr	2005	Gln Thr Ser Gly Lys	2010	Thr Thr Gln Thr
2015	His Arg Glu Thr Ala Gly	2020	Asp Gly Lys Ser Ile	2025	Lys Ala Phe Lys
2030	Glu Ser Ala Lys Gln Met	2035	Leu Asp Pro Ala Asn	2040	Tyr Gly Thr Gly
2045	Met Glu Arg Trp Pro Arg	2050	Thr Pro Lys Glu Glu	2055	Ala Gln Ser Leu
2060	Glu Asp Leu Ala Gly Phe	2065	Lys Glu Leu Phe Gln	2070	Thr Pro Asp His
2075	Thr Glu Glu Ser Thr Thr	2080	Asp Asp Lys Thr Thr	2085	Lys Ile Ala Cys
2090	Lys Ser Pro Pro Pro Glu	2095	Ser Met Asp Thr Pro	2100	Thr Ser Thr Arg
2105	Arg Arg Pro Lys Thr Pro	2110	Leu Gly Lys Arg Asp	2115	Ile Val Glu Glu
2120	Leu Ser Ala Leu Lys Gln	2125	Leu Thr Gln Thr Thr	2130	His Thr Asp Lys
2135	Val Pro Gly Asp Glu Asp	2140	Lys Gly Ile Asn Val	2145	Phe Arg Glu Thr
2150	Ala Lys Gln Lys Leu Asp	2155	Pro Ala Ala Ser Val	2160	Thr Gly Ser Lys
2165	Arg Gln Pro Arg Thr Pro	2170	Lys Gly Lys Ala Gln	2175	Pro Leu Glu Asp
2180		2185		2190	

Leu	Ala	Gly	Leu	Lys	Glu	Leu	Phe	Gln	Thr	Pro	Val	Cys	Thr	Asp
2195						2200					2205			
Lys	Pro	Thr	Thr	His	Glu	Lys	Thr	Thr	Lys	Ile	Ala	Cys	Arg	Ser
2210						2215					2220			
Pro	Gln	Pro	Asp	Pro	Val	Gly	Thr	Pro	Thr	Ile	Phe	Lys	Pro	Gln
2225						2230					2235			
Ser	Lys	Arg	Ser	Leu	Arg	Lys	Ala	Asp	Val	Glu	Glu	Glu	Ser	Leu
2240						2245					2250			
Ala	Leu	Arg	Lys	Arg	Thr	Pro	Ser	Val	Gly	Lys	Ala	Met	Asp	Thr
2255						2260					2265			
Pro	Lys	Pro	Ala	Gly	Gly	Asp	Glu	Lys	Asp	Met	Lys	Ala	Phe	Met
2270						2275					2280			
Gly	Thr	Pro	Val	Gln	Lys	Leu	Asp	Leu	Pro	Gly	Asn	Leu	Pro	Gly
2285						2290					2295			
Ser	Lys	Arg	Trp	Pro	Gln	Thr	Pro	Lys	Glu	Lys	Ala	Gln	Ala	Leu
2300						2305					2310			
Glu	Asp	Leu	Ala	Gly	Phe	Lys	Glu	Leu	Phe	Gln	Thr	Pro	Gly	Thr
2315						2320					2325			
Asp	Lys	Pro	Thr	Thr	Asp	Glu	Lys	Thr	Thr	Lys	Ile	Ala	Cys	Lys
2330						2335					2340			
Ser	Pro	Gln	Pro	Asp	Pro	Val	Asp	Thr	Pro	Ala	Ser	Thr	Lys	Gln
2345						2350					2355			
Arg	Pro	Lys	Arg	Asn	Leu	Arg	Lys	Ala	Asp	Val	Glu	Glu	Glu	Phe
2360						2365					2370			
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2375						2380					2385			
Thr	Pro	Lys	Pro	Ala	Val	Ser	Asp	Glu	Lys	Asn	Ile	Asn	Thr	Phe
2390						2395					2400			
Val	Glu	Thr	Pro	Val	Gln	Lys	Leu	Asp	Leu	Leu	Gly	Asn	Leu	Pro
2405						2410					2415			
Gly	Ser	Lys	Arg	Gln	Pro	Gln	Thr	Pro	Lys	Glu	Lys	Ala	Glu	Ala
2420						2425					2430			
Leu	Glu	Asp	Leu	Val	Gly	Phe	Lys	Glu	Leu	Phe	Gln	Thr	Pro	Gly
2435						2440					2445			
His	Thr	Glu	Glu	Ser	Met	Thr	Asp	Asp	Lys	Ile	Thr	Glu	Val	Ser
2450						2455					2460			
Cys	Lys	Ser	Pro	Gln	Pro	Glu	Ser	Phe	Lys	Thr	Ser	Arg	Ser	Ser
2465						2470					2475			
Lys	Gln	Arg	Leu	Lys	Ile	Pro	Leu	Val	Lys	Val	Asp	Met	Lys	Glu
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Glu	Pro	Leu	Ala	Val	Ser	Lys	Leu	Thr	Arg	Thr	Ser	Gly	Glu	Thr
2495						2500					2505			
Thr	Gln	Thr	His	Thr	Glu	Pro	Thr	Gly	Asp	Ser	Lys	Ser	Ile	Lys
2510						2515					2520			
Ala	Phe	Lys	Glu	Ser	Pro	Lys	Gln	Ile	Leu	Asp	Pro	Ala	Ala	Ser
2525						2530					2535			
Val	Thr	Gly	Ser	Arg	Arg	Gln	Leu	Arg	Thr	Arg	Lys	Glu	Lys	Ala
2540						2545					2550			
Arg	Ala	Leu	Glu	Asp	Leu	Val	Asp	Phe	Lys	Glu	Leu	Phe	Ser	Ala
2555						2560					2565			
Pro	Gly	His	Thr	Glu	Glu	Ser	Met	Thr	Ile	Asp	Lys	Asn	Thr	Lys
2570						2575					2580			
Ile	Pro	Cys	Lys	Ser	Pro	Pro	Pro	Glu	Leu	Thr	Asp	Thr	Ala	Thr
2585						2590					2595			
Ser	Thr	Lys	Arg	Cys	Pro	Lys	Thr	Arg	Pro	Arg	Lys	Glu	Val	Lys
2600						2605					2610			
Glu	Glu	Leu	Ser	Ala	Val	Glu	Arg	Leu	Thr	Gln	Thr	Ser	Gly	Gln
2615						2620					2625			
Ser	Thr	His	Thr	His	Lys	Glu	Pro	Ala	Ser	Gly	Asp	Glu	Gly	Ile
2630						2635					2640			
Lys	Val	Leu	Lys	Gln	Arg	Ala	Lys	Lys	Lys	Pro	Asn	Pro	Val	Glu
2645						2650					2655			
Glu	Glu	Pro	Ser	Arg	Arg	Arg	Pro	Arg	Ala	Pro	Lys	Glu	Lys	Ala
2660						2665					2670			
Gln	Pro	Leu	Glu	Asp	Leu	Ala	Gly	Phe	Thr	Glu	Leu	Ser	Glu	Thr
2675						2680					2685			
Ser	Gly	His	Thr	Gln	Glu	Ser	Leu	Thr	Ala	Gly	Lys	Ala	Thr	Lys
2690						2695					2700			
Ile	Pro	Cys	Glu	Ser	Pro	Pro	Leu	Glu	Val	Val	Asp	Thr	Thr	Ala

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Ser Thr Lys Arg His Leu	Arg Thr Arg Val Gln	Lys Val Gln Val
2720	2725	2730
Lys Glu Glu Pro Ser Ala	Val Lys Phe Thr Gln	Thr Ser Gly Glu
2735	2740	2745
Thr Thr Asp Ala Asp Lys	Glu Pro Ala Gly Glu	Asp Lys Gly Ile
2750	2755	2760
Lys Ala Leu Lys Glu Ser	Ala Lys Gln Thr Pro	Ala Pro Ala Ala
2765	2770	2775
Ser Val Thr Gly Ser Arg	Arg Arg Pro Arg Ala	Pro Arg Glu Ser
2780	2785	2790
Ala Gln Ala Ile Glu Asp	Leu Ala Gly Phe Lys	Asp Pro Ala Ala
2795	2800	2805
Gly His Thr Glu Glu Ser	Met Thr Asp Asp Lys	Thr Thr Lys Ile
2810	2815	2820
Pro Cys Lys Ser Ser Pro	Glu Leu Glu Asp Thr	Ala Thr Ser Ser
2825	2830	2835
Lys Arg Arg Pro Arg Thr	Arg Ala Gln Lys Val	Glu Val Lys Glu
2840	2845	2850
Glu Leu Leu Ala Val Gly	Lys Leu Thr Gln Thr	Ser Gly Glu Thr
2855	2860	2865
Thr His Thr Asp Lys Glu	Pro Val Gly Glu Gly	Lys Gly Thr Lys
2870	2875	2880
Ala Phe Lys Gln Pro Ala	Lys Arg Asn Val Asp	Ala Glu Asp Val
2885	2890	2895
Ile Gly Ser Arg Arg Gln	Pro Arg Ala Pro Lys	Glu Lys Ala Gln
2900	2905	2910
Pro Leu Glu Asp Leu Ala	Ser Phe Gln Glu Leu	Ser Gln Thr Pro
2915	2920	2925
Gly His Thr Glu Glu Leu	Ala Asn Gly Ala Ala	Asp Ser Phe Thr
2930	2935	2940
Ser Ala Pro Lys Gln Thr	Pro Asp Ser Gly Lys	Pro Leu Lys Ile
2945	2950	2955
Ser Arg Arg Val Leu Arg	Ala Pro Lys Val Glu	Pro Val Gly Asp
2960	2965	2970
Val Val Ser Thr Arg Asp	Pro Val Lys Ser Gln	Ser Lys Ser Asn
2975	2980	2985
Thr Ser Leu Pro Pro Leu	Pro Phe Lys Arg Gly	Gly Gly Lys Asp
2990	2995	3000
Gly Ser Val Thr Gly Thr	Lys Arg Leu Arg Cys	Met Pro Ala Pro
3005	3010	3015
Glu Glu Ile Val Glu Glu	Leu Pro Ala Ser Lys	Lys Gln Arg Val
3020	3025	3030
Ala Pro Arg Ala Arg Gly	Lys Ser Ser Glu Pro	Val Val Ile Met
3035	3040	3045
Lys Arg Ser Leu Arg Thr	Ser Ala Lys Arg Ile	Glu Pro Ala Glu
3050	3055	3060
Glu Leu Asn Ser Asn Asp	Met Lys Thr Asn Lys	Glu Glu His Lys
3065	3070	3075
Leu Gln Asp Ser Val Pro	Glu Asn Lys Gly Ile	Ser Leu Arg Ser
3080	3085	3090
Arg Arg Gln Asp Lys Thr	Glu Ala Glu Gln Gln	Ile Thr Glu Val
3095	3100	3105
Phe Val Leu Ala Glu Arg	Ile Glu Ile Asn Arg	Asn Glu Lys Lys
3110	3115	3120
Pro Met Lys Thr Ser Pro	Glu Met Asp Ile Gln	Asn Pro Asp Asp
3125	3130	3135
Gly Ala Arg Lys Pro Ile	Pro Arg Asp Lys Val	Thr Glu Asn Lys
3140	3145	3150
Arg Cys Leu Arg Ser Ala	Arg Gln Asn Glu Ser	Ser Gln Pro Lys
3155	3160	3165
Val Ala Glu Glu Ser Gly	Gly Gln Lys Ser Ala	Lys Val Leu Met
3170	3175	3180
Gln Asn Gln Lys Gly Lys	Gly Glu Ala Gly Asn	Ser Asp Ser Met
3185	3190	3195
Cys Leu Arg Ser Arg Lys	Thr Lys Ser Gln Pro	Ala Ala Ser Thr
3200	3205	3210
Leu Glu Ser Lys Ser Val	Gln Arg Val Thr Arg	Ser Val Lys Arg
3215	3220	3225

Cys Ala Glu Asn Pro Lys Lys Ala Glu Asp Asn Val Cys Val Lys
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 Lys Ile Thr Thr Arg Ser His Arg Asp Ser Glu Asp Ile
 3245 3250 3255

<210> 258

<211> 160

<212> PRT

<213> Homo sapiens

<400> 258

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 20 25 30
 Thr Asp Ser Glu Glu Asp Leu Asp Pro Met Glu Asp Phe Asp Ser Leu
 35 40 45
 Glu Cys Met Glu Gly Ser Asp Ala Leu Ala Leu Arg Leu Ala Cys Ile
 50 55 60
 Gly Asp Glu Met Asp Val Ser Leu Arg Ala Pro Arg Leu Ala Gln Leu
 65 70 75 80
 Ser Glu Val Ala Met His Ser Leu Gly Leu Ala Phe Ile Tyr Asp Gln
 85 90 95
 Thr Glu Asp Ile Arg Asp Val Leu Arg Ser Phe Met Asp Gly Phe Thr
 100 105 110
 Thr Leu Lys Glu Asn Ile Met Arg Phe Trp Arg Ser Pro Asn Pro Gly
 115 120 125
 Ser Trp Val Ser Cys Glu Gln Val Leu Leu Ala Leu Leu Leu Leu Leu
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 Ala Leu Leu Leu Pro Leu Leu Ser Gly Gly Leu His Leu Leu Leu Lys
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<210> 259

<211> 1844

<212> PRT

<213> Homo sapiens

<400> 259

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 Lys Leu Gln Arg Glu Arg Gly Leu Gly Ser Glu Lys His Arg Lys Glu
 35 40 45
 Val Ser Asp Leu Ile Lys Glu Cys Arg Gln Ser Leu Ala Glu Ser Leu
 50 55 60
 Phe Ala Trp Ala Cys Gln Ser Pro Leu Gly Lys Glu Asp Thr Leu Leu
 65 70 75 80
 Leu Ile Gly His Leu Glu Arg Val Thr Val Glu Ala Asn Gly Ser Leu
 85 90 95
 Asp Ala Val Asn Leu Ala Leu Leu Met Ala Leu Leu Tyr Cys Phe Asp
 100 105 110
 Ile Ser Phe Ile Glu Gln Ser Thr Glu Glu Arg Asp Asp Met Ile His
 115 120 125
 Gln Leu Pro Leu Leu Thr Glu Lys Gln Tyr Ile Ala Thr Ile His Ser
 130 135 140
 Arg Leu Gln Asp Ser Gln Leu Trp Lys Leu Pro Gly Leu Gln Ala Thr
 145 150 155 160
 Val Arg Leu Ala Trp Ala Leu Ala Leu Arg Gly Ile Ser Gln Leu Pro
 165 170 175
 Asp Val Thr Ala Leu Ala Glu Phe Thr Glu Ala Asp Glu Ala Met Ala
 180 185 190
 Glu Leu Ala Ile Ala Asp Asn Val Phe Leu Phe Leu Met Glu Ser Val
 195 200 205
 Val Val Ser Glu Tyr Phe Tyr Gln Glu Glu Phe Tyr Ile Arg Arg Val
 210 215 220
 His Asn Leu Ile Thr Asp Phe Leu Ala Leu Met Pro Met Lys Val Lys
 225 230 235 240
 Gln Leu Arg Asn Arg Ala Asp Glu Asp Ala Arg Met Ile His Met Ser
 245 250 255
 Met Gln Met Gly Asn Glu Pro Pro Ile Ser Leu Arg Arg Asp Leu Glu

- 298 -

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Ile His Ile Leu Asn Leu Leu Ile Thr Ser Leu Glu Cys Asn Pro Pro
      820      825      830
Asn Leu Ala Leu Tyr Leu Leu Gly Phe Glu Leu Lys Lys Pro Val Ser
      835      840      845
Thr Thr Asn Leu Gln Asp Pro Gly Val Leu Gly Cys Pro Arg Thr Cys
      850      855      860
Leu His Ala Ile Leu Asn Ile Leu Glu Lys Gly Thr Glu Gly Arg Thr
865      870      875      880
Gly Pro Val Ala Val Arg Glu Ser Pro Gln Leu Ala Glu Leu Cys Tyr
      885      890      895
Gln Val Ile Tyr Gln Leu Cys Ala Cys Ser Asp Thr Ser Gly Pro Thr
      900      905      910
Met Arg Tyr Leu Arg Thr Ser Gln Asp Phe Leu Phe Ser Gln Leu Gln
      915      920      925
Tyr Leu Pro Phe Ser Asn Lys Glu Tyr Glu Ile Ser Met Leu Asn Gln
      930      935      940
Met Ser Trp Leu Met Lys Thr Ala Ser Ile Glu Leu Arg Val Thr Ser
945      950      955      960
Leu Asn Arg Gln Arg Ser His Thr Gln Arg Leu Leu His Leu Leu Leu
      965      970      975
Asp Asp Met Pro Val Lys Pro Tyr Ser Asp Gly Glu Gly Gly Ile Glu
      980      985      990
Asp Glu Asn Arg Ser Val Ser Gly Phe Leu His Phe Asp Thr Ala Thr
      995      1000      1005
Lys Val Arg Arg Lys Ile Leu Asn Ile Leu Asp Ser Ile Asp Phe
      1010      1015      1020
Ser Gln Glu Ile Pro Glu Pro Leu Gln Leu Asp Phe Phe Asp Arg
      1025      1030      1035
Ala Gln Ile Glu Gln Val Ile Ala Asn Cys Glu His Lys Asn Leu
      1040      1045      1050
Arg Gly Gln Thr Val Cys Asn Val Lys Leu Leu His Arg Val Leu
      1055      1060      1065
Val Ala Glu Val Asn Ala Leu Gln Gly Met Ala Ala Ile Gly Gln
      1070      1075      1080
Arg Pro Leu Leu Met Glu Glu Ile Ser Thr Val Leu Gln Tyr Val
      1085      1090      1095
Val Gly Arg Asn Lys Leu Leu Gln Cys Leu His Ala Lys Arg His
      1100      1105      1110
Ala Leu Glu Ser Trp Arg Gln Leu Val Glu Ile Ile Leu Thr Ala
      1115      1120      1125
Cys Pro Gln Asp Leu Ile Gln Ala Glu Asp Arg Gln Leu Ile Ile
      1130      1135      1140
Arg Asp Ile Leu Gln Asp Val His Asp Lys Ile Leu Asp Asp Glu
      1145      1150      1155
Ala Ala Gln Glu Leu Met Pro Val Val Ala Gly Ala Val Phe Thr
      1160      1165      1170
Leu Thr Ala His Leu Ser Gln Ala Val Leu Thr Glu Gln Lys Glu
      1175      1180      1185
Thr Ser Val Leu Gly Pro Ala Glu Ala His Tyr Ala Phe Met Leu
      1190      1195      1200
Asp Ser Cys Phe Thr Ser Pro Pro Pro Glu Glu Asn Pro Leu Val
      1205      1210      1215
Gly Phe Ala Ser Ile Gly Asp Ser Ser Leu Tyr Ile Ile Leu Lys
      1220      1225      1230
Lys Leu Leu Asp Phe Ile Leu Lys Thr Gly Gly Gly Phe Gln Arg
      1235      1240      1245
Val Arg Thr His Leu Tyr Gly Ser Leu Leu Tyr Tyr Leu Gln Ile
      1250      1255      1260
Ala Gln Arg Pro Asp Glu Pro Asp Thr Leu Glu Ala Ala Lys Lys
      1265      1270      1275
Thr Met Trp Glu Arg Leu Thr Ala Pro Glu Asp Val Phe Ser Lys
      1280      1285      1290
Leu Gln Arg Glu Asn Ile Ala Ile Ile Glu Ser Tyr Gly Ala Ala
      1295      1300      1305
Leu Met Glu Val Val Cys Arg Asp Ala Cys Asp Gly His Glu Ile
      1310      1315      1320
Gly Arg Met Leu Ala Leu Ala Leu Leu Asp Arg Ile Val Ser Val
      1325      1330      1335
Asp Lys Gln Gln Gln Trp Leu Leu Tyr Leu Ser Asn Ser Gly Tyr

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1340	Leu Lys Val Leu Val Asp	1345	Ser Leu Val Glu Asp	1350	Asp Arg Thr Leu
1355	Gln Ser Leu Leu Thr Pro	1360	Pro Pro Leu Leu Lys	1365	Ala Leu Tyr
1370	Thr Tyr Glu Ser Lys Met	1375	Ala Phe Leu Thr Arg	1380	Val Ala Lys Ile
1385	Gln Gln Gly Ala Leu Glu	1390	Leu Leu Arg Ser Gly	1395	Val Ile Val Arg
1400	Leu Ala Gln Cys Gln Val	1405	Tyr Asp Met Arg Pro	1410	Glu Thr Asp Pro
1415	Gln Ser Met Phe Gly Met	1420	Arg Asp Pro Pro Met	1425	Phe Ile Pro Thr
1430	Pro Val Asp Arg Tyr Arg	1435	Gln Ile Leu Leu Pro	1440	Ala Leu Gln Leu
1445	Cys Gln Val Ile Leu Thr	1450	Ser Ser Met Ala Gln	1455	His Leu Gln Ala
1460	Ala Gly Gln Val Leu Gln	1465	Phe Leu Ile Ser His	1470	Ser Asp Thr Ile
1475	Gln Ala Ile Leu Arg Cys	1480	Gln Asp Val Ser Ala	1485	Gly Ser Leu Gln
1490	Glu Leu Ala Leu Leu Thr	1495	Gly Ile Ile Ser Lys	1500	Ala Leu Pro
1505	Gly Ile Leu Ser Glu Leu	1510	Asp Val Asp Val Asn	1515	Glu Gly Ser Leu
1520	Met Glu Leu Gln Gly His	1525	Ile Gly Arg Phe Gln	1530	Arg Gln Cys Leu
1535	Gly Leu Leu Ser Arg Phe	1540	Gly Gly Ser Asp Arg	1545	Leu Arg Gln Phe
1550	Lys Phe Gln Asp Asp Asn	1555	Val Glu Gly Asp Lys	1560	Val Ser Lys Lys
1565	Asp Glu Ile Glu Leu Ala	1570	Met Gln Gln Ile Cys	1575	Ala Asn Val Met
1580	Glu Tyr Cys Gln Ser Leu	1585	Met Leu Gln Ser Ser	1590	Pro Thr Phe Gln
1595	His Ala Val Cys Leu Phe	1600	Thr Pro Ser Leu Ser	1605	Glu Thr Val Asn
1610	Arg Asp Gly Pro Arg Gln	1615	Asp Thr Gln Ala Pro	1620	Val Val Pro Tyr
1625	Trp Arg Leu Pro Gly Leu	1630	Gly Ile Ile Ile Tyr	1635	Leu Leu Lys Gln
1640	Ser Ala Asn Asp Phe Phe	1645	Ser Tyr Tyr Asp Ser	1650	His Arg Gln Ser
1655	Val Ser Lys Leu Gln Asn	1660	Val Glu Gln Leu Pro	1665	Pro Asp Glu Ile
1670	Lys Glu Leu Cys Gln Ser	1675	Val Met Pro Ala Gly	1680	Val Asp Lys Ile
1685	Ser Thr Ala Gln Lys Tyr	1690	Val Leu Ala Arg Arg	1695	Arg Leu Val Lys
1700	Val Ile Asn Asn Arg Ala	1705	Lys Leu Leu Ser Leu	1710	Cys Ser Phe Ile
1715	Ile Glu Thr Cys Leu Phe	1720	Ile Leu Trp Arg His	1725	Leu Glu Tyr Tyr
1730	Leu Leu His Cys Met Pro	1735	Thr Asp Ser Gln Asp	1740	Ser Leu Phe Ala
1745	Ser Arg Thr Leu Phe Lys	1750	Ser Arg Arg Leu Gln	1755	Asp Ser Phe Ala
1760	Ser Glu Thr Asn Leu Asp	1765	Phe Arg Ser Gly Leu	1770	Ala Ile Val Ser
1775	Gln His Asp Leu Asp Gln	1780	Leu Gln Ala Asp Ala	1785	Ile Asn Ala Phe
1790	Gly Glu Ser Leu Gln Lys	1795	Lys Leu Leu Asp Ile	1800	Glu Gly Leu Tyr
1805	Ser Lys Val Arg Ser Arg	1810	Tyr Ser Phe Ile Gln	1815	Ala Leu Val Arg
1820	Arg Ile Arg Gly Leu Leu	1825	Arg Ile Ser Arg Asn	1830	
1835		1840			

<210> 260

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<211> 1299
<212> PRT
<213> Homo sapiens
<400> 260
Met Ala Ala Glu Thr Gln Thr Leu Asn Phe Gly Pro Glu Trp Leu Arg
1      5      10      15
Ala Leu Ser Ser Gly Gly Ser Ile Thr Ser Pro Pro Leu Ser Pro Ala
20      25      30
Leu Pro Lys Tyr Lys Leu Ala Asp Tyr Arg Tyr Gly Arg Glu Glu Met
35      40      45
Leu Ala Leu Phe Leu Lys Asp Asn Lys Ile Pro Ser Asp Leu Leu Asp
50      55      60
Lys Glu Phe Leu Pro Ile Leu Gln Glu Glu Pro Leu Pro Pro Leu Ala
65      70      75      80
Leu Val Pro Phe Thr Glu Glu Glu Gln Arg Asn Phe Ser Met Ser Val
85      90      95
Asn Ser Ala Ala Val Leu Arg Leu Thr Gly Arg Gly Gly Gly Thr
100      105      110
Val Val Gly Ala Pro Arg Gly Arg Ser Ser Ser Arg Gly Arg Gly Arg
115      120      125
Gly Arg Gly Glu Cys Gly Phe Tyr Gln Arg Ser Phe Asp Glu Val Glu
130      135      140
Gly Val Phe Gly Arg Gly Gly Gly Arg Glu Met His Arg Ser Gln Ser
145      150      155      160
Trp Glu Glu Arg Gly Asp Arg Arg Phe Glu Lys Pro Gly Arg Lys Asp
165      170      175
Val Gly Arg Pro Asn Phe Glu Glu Gly Gly Pro Thr Ser Val Gly Arg
180      185      190
Lys His Glu Phe Ile Arg Ser Glu Ser Glu Asn Trp Arg Ile Phe Arg
195      200      205
Glu Glu Gln Asn Gly Glu Asp Glu Asp Gly Gly Trp Arg Leu Ala Gly
210      215      220
Ser Arg Arg Asp Gly Glu Arg Trp Arg Pro His Ser Pro Asp Gly Pro
225      230      235      240
Arg Ser Ala Gly Trp Arg Glu His Met Glu Arg Arg Arg Arg Phe Glu
245      250      255
Phe Asp Phe Arg Asp Arg Asp Asp Glu Arg Gly Tyr Arg Arg Val Arg
260      265      270
Ser Gly Ser Gly Ser Ile Asp Asp Arg Asp Ser Leu Pro Glu Trp
275      280      285
Cys Leu Glu Asp Ala Glu Glu Glu Met Gly Thr Phe Asp Ser Ser Gly
290      295      300
Ala Phe Leu Ser Leu Lys Val Gln Lys Glu Pro Ile Pro Glu Glu
305      310      315      320
Gln Glu Met Asp Phe Arg Pro Val Asp Glu Gly Glu Glu Cys Ser Asp
325      330      335
Ser Glu Gly Ser His Asn Glu Glu Ala Lys Glu Pro Asp Lys Thr Asn
340      345      350
Lys Lys Glu Gly Glu Lys Thr Asp Arg Val Gly Val Glu Ala Ser Glu
355      360      365
Glu Thr Pro Gln Thr Ser Ser Ser Ser Ala Arg Pro Gly Thr Pro Ser
370      375      380
Asp His Gln Ser Gln Glu Ala Ser Gln Phe Glu Arg Lys Asp Glu Pro
385      390      395      400
Lys Thr Glu Gln Thr Glu Lys Ala Glu Glu Glu Thr Arg Met Glu Asn
405      410      415
Ser Leu Pro Ala Lys Val Pro Ser Arg Gly Asp Glu Met Val Ala Asp
420      425      430
Val Gln Gln Pro Leu Ser Gln Ile Pro Ser Asp Thr Ala Ser Pro Leu
435      440      445
Leu Ile Leu Pro Pro Pro Val Pro Asn Pro Ser Pro Thr Leu Arg Pro
450      455      460
Val Glu Thr Pro Val Val Gly Ala Pro Gly Met Gly Ser Val Ser Thr
465      470      475      480
Glu Pro Asp Asp Glu Glu Gly Leu Lys His Leu Glu Gln Gln Ala Glu
485      490      495
Lys Met Val Ala Tyr Leu Gln Asp Ser Ala Leu Asp Asp Glu Arg Leu
500      505      510
Ala Ser Lys Leu Gln Glu His Arg Ala Lys Gly Val Ser Ile Pro Leu

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- 302 -

Ala Asp Thr Lys Asn Ser Asn Met Gly Phe Trp Asp Asp Ala Val
 1070 1075 1080
 Lys Glu Val Gly Pro Arg Asn Ser Thr Asn Lys Asn Lys Asn Asn
 1085 1090 1095
 Ala Ser Leu Ser Lys Ser Val Gly Val Ser Asn Arg Gln Asn Lys
 1100 1105 1110
 Lys Val Glu Glu Glu Glu Lys Leu Leu Lys Leu Phe Gln Gly Val
 1115 1120 1125
 Asn Lys Ala Gln Asp Gly Phe Thr Gln Trp Cys Glu Gln Met Leu
 1130 1135 1140
 His Ala Leu Asn Thr Ala Asn Asn Leu Gly Val Pro Thr Phe Val
 1145 1150 1155
 Ser Phe Leu Lys Glu Val Glu Ser Pro Tyr Glu Val His Asp Tyr
 1160 1165 1170
 Ile Arg Ala Tyr Leu Gly Asp Thr Ser Glu Ala Lys Glu Phe Ala
 1175 1180 1185
 Lys Gln Phe Leu Glu Arg Arg Ala Lys Gln Lys Ala Asn Gln Gln
 1190 1195 1200
 Arg Gln Gln Gln Gln Leu Pro Gln Gln Gln Gln Gln Pro Pro
 1205 1210 1215
 Gln Gln Pro Pro Gln Gln Pro Gln Gln Gln Asp Ser Val Trp Gly
 1220 1225 1230
 Met Asn His Ser Thr Leu His Ser Val Phe Gln Thr Asn Gln Ser
 1235 1240 1245
 Asn Asn Gln Gln Ser Asn Phe Glu Ala Val Gln Ser Gly Lys Lys
 1250 1255 1260
 Lys Lys Lys Gln Lys Met Val Arg Ala Asp Pro Ser Leu Leu Gly
 1265 1270 1275
 Phe Ser Val Asn Ala Ser Ser Glu Arg Leu Asn Met Gly Glu Ile
 1280 1285 1290
 Glu Thr Leu Asp Asp Tyr
 1295

<210> 261
 <211> 107
 <212> PRT
 <213> Homo sapiens
 <400> 261

Met Ser Gly Cys Arg Val Phe Ile Gly Arg Leu Asn Pro Ala Ala Arg
 1 5 10 15
 Glu Lys Asp Val Glu Arg Phe Phe Lys Gly Tyr Gly Arg Ile Arg Asp
 20 25 30
 Ile Asp Leu Lys Arg Gly Phe Gly Phe Val Glu Phe Glu Asp Pro Arg
 35 40 45
 Asp Ala Asp Asp Ala Val Tyr Glu Leu Asp Gly Lys Glu Leu Cys Ser
 50 55 60
 Glu Arg Val Thr Ile Glu His Ala Arg Ala Arg Ser Arg Gly Gly Arg
 65 70 75 80
 Gly Arg Gly Arg Tyr Ser Asp Arg Phe Ser Ser Arg Arg Pro Arg Asn
 85 90 95
 Asp Arg Arg Tyr Val Lys Gly Gly Trp Leu His
 100 105

<210> 262
 <211> 184
 <212> PRT
 <213> Homo sapiens
 <400> 262

Met Val Arg Tyr Ser Leu Asp Pro Glu Asn Pro Thr Lys Ser Cys Lys
 1 5 10 15
 Ser Arg Gly Ser Asn Leu Arg Val His Phe Lys Asn Thr Arg Glu Thr
 20 25 30
 Ala Gln Ala Ile Lys Gly Met His Ile Arg Lys Ala Thr Lys Tyr Leu
 35 40 45
 Lys Asp Val Thr Leu Gln Lys Gln Cys Val Pro Phe Arg Arg Tyr Asn
 50 55 60
 Gly Gly Val Gly Arg Cys Ala Gln Ala Lys Gln Trp Gly Trp Thr Gln
 65 70 75 80
 Gly Arg Trp Pro Lys Lys Ser Ala Glu Phe Leu Leu His Met Leu Lys

Asn	Ala	Glu	Ser	85	Asn	Ala	Glu	Leu	Lys	90	Gly	Leu	Asp	Val	Asp	95	Ser	Leu
			100						105						110			
Val	Ile	Glu	His	Ile	Gln	Val	Asn	Lys	Ala	Pro	Lys	Met	Arg	Arg	Arg			
		115					120					125						
Thr	Tyr	Arg	Ala	His	Gly	Arg	Ile	Asn	Pro	Tyr	Met	Ser	Ser	Pro	Cys			
	130				135						140							
His	Ile	Glu	Met	Ile	Leu	Thr	Glu	Lys	Glu	Gln	Ile	Val	Pro	Lys	Pro			
145					150					155					160			
Glu	Glu	Glu	Val	Ala	Gln	Lys	Lys	Lys	Ile	Ser	Gln	Lys	Lys	Leu	Lys			
				165					170					175				
Lys	Gln	Lys	Leu	Met	Ala	Arg	Glu											
				180														

<210> 263

<211> 72

<212> PRT

<213> Homo sapiens

<400> 263

Met	Ser	Ser	Lys	Thr	Ala	Ser	Thr	Asn	Asn	Ile	Ala	Gln	Ala	Arg	Arg
1				5				10						15	
Thr	Val	Gln	Gln	Leu	Arg	Leu	Glu	Ala	Ser	Ile	Glu	Arg	Ile	Lys	Val
		20						25				30			
Ser	Lys	Ala	Ser	Ala	Asp	Leu	Met	Ser	Tyr	Cys	Glu	Glu	His	Ala	Arg
		35				40					45				
Ser	Asp	Pro	Leu	Leu	Ile	Gly	Ile	Pro	Thr	Ser	Glu	Asn	Pro	Phe	Lys
	50					55					60				
Asp	Lys	Lys	Thr	Cys	Ile	Ile	Leu								
65					70										

<210> 264

<211> 462

<212> PRT

<213> Homo sapiens

<400> 264

Met	Lys	Thr	Arg	Arg	Thr	Thr	Arg	Leu	Gln	Gln	Gln	His	Ser	Glu	Gln
1				5				10						15	
Pro	Pro	Leu	Gln	Pro	Ser	Pro	Val	Thr	Thr	Arg	Arg	Gly	Leu	Arg	Asp
		20						25				30			
Ser	His	Ser	Ser	Glu	Glu	Asp	Glu	Ala	Ser	Ser	Gln	Thr	Asp	Leu	Ser
	35					40					45				
Gln	Thr	Ile	Ser	Lys	Lys	Thr	Val	Arg	Ser	Ile	Gln	Glu	Ala	Pro	Val
	50					55					60				
Ser	Glu	Asp	Leu	Val	Ile	Arg	Leu	Arg	Arg	Pro	Pro	Leu	Arg	Cys	Pro
65					70					75				80	
Arg	Tyr	Glu	Ala	Thr	Ser	Val	Gln	Gln	Lys	Val	Asn	Phe	Ser	Glu	Glu
				85					90					95	
Gly	Glu	Thr	Glu	Glu	Asp	Asp	Gln	Asp	Ser	Ser	His	Ser	Ser	Val	Thr
		100						105					110		
Thr	Val	Lys	Ala	Arg	Ser	Arg	Asp	Ser	Asp	Glu	Ser	Gly	Asp	Lys	Thr
		115					120					125			
Thr	Arg	Ser	Ser	Ser	Gln	Tyr	Ile	Glu	Ser	Phe	Trp	Gln	Ser	Ser	Gln
	130					135					140				
Ser	Gln	Asn	Phe	Thr	Ala	His	Asp	Lys	Gln	Arg	Ser	Val	Leu	Ser	Ser
145					150					155					160
Gly	Tyr	Gln	Lys	Thr	Pro	Gln	Glu	Trp	Ala	Pro	Gln	Thr	Ala	Arg	Ile
				165					170					175	
Arg	Thr	Arg	Met	Gln	Asn	Asp	Ser	Ile	Leu	Lys	Ser	Glu	Leu	Gly	Asn
			180					185					190		
Gln	Ser	Pro	Ser	Thr	Ser	Ser	Arg	Gln	Val	Thr	Gly	Gln	Pro	Gln	Asn
		195					200					205			
Ala	Ser	Phe	Val	Lys	Arg	Asn	Arg	Trp	Trp	Leu	Leu	Pro	Leu	Ile	Ala
	210					215						220			
Ala	Leu	Ala	Ser	Gly	Ser	Phe	Trp	Phe	Phe	Ser	Thr	Pro	Glu	Val	Glu
225					230					235					240
Thr	Thr	Ala	Val	Gln	Glu	Phe	Gln	Asn	Gln	Met	Asn	Gln	Leu	Lys	Asn
				245					250					255	
Lys	Tyr	Gln	Gly	Gln	Asp	Glu	Lys	Leu	Trp	Lys	Arg	Ser	Gln	Thr	Phe
			260					265						270	

Leu Glu Lys His Leu Asn Ser Ser His Pro Arg Ser Gln Pro Ala Ile
 275 280 285
 Leu Leu Leu Thr Ala Ala Arg Asp Ala Glu Glu Ala Leu Arg Cys Leu
 290 295 300
 Ser Glu Gln Ile Ala Asp Ala Tyr Ser Ser Phe Arg Ser Val Arg Ala
 305 310 315 320
 Ile Arg Ile Asp Gly Thr Asp Lys Ala Thr Gln Asp Ser Asp Thr Val
 325 330 335
 Lys Leu Glu Val Asp Gln Glu Leu Ser Asn Gly Phe Lys Asn Gly Gln
 340 345 350
 Asn Ala Ala Val Val His Arg Phe Glu Ser Phe Pro Ala Gly Ser Thr
 355 360 365
 Leu Ile Phe Tyr Lys Tyr Cys Asp His Glu Asn Ala Ala Phe Lys Asp
 370 375 380
 Val Ala Leu Val Leu Thr Val Leu Leu Glu Glu Thr Leu Gly Thr
 385 390 395 400
 Ser Leu Gly Leu Lys Glu Val Glu Glu Lys Val Arg Asp Phe Leu Lys
 405 410 415
 Val Lys Phe Thr Asn Ser Asn Thr Pro Asn Ser Tyr Asn His Met Asp
 420 425 430
 Pro Asp Lys Leu Asn Gly Leu Trp Ser Arg Ile Ser His Leu Val Leu
 435 440 445
 Pro Val Gln Pro Glu Asn Ala Leu Lys Arg Gly Ile Cys Leu
 450 455 460

<210> 265

<211> 192

<212> PRT

<213> Homo sapiens

<400> 265

Met Phe Ser Gln Phe Thr Asp Ile Lys Arg Lys Asp Phe Gly Ile Met
 1 5 10 15
 Phe Leu His His Leu Val Ser Ile Phe Leu Ile Thr Phe Ser Tyr Val
 20 25 30
 Asn Asn Met Ala Arg Val Gly Thr Leu Val Leu Cys Leu His Asp Ser
 35 40 45
 Ala Asp Ala Leu Leu Glu Ala Ala Lys Met Ala Asn Tyr Ala Lys Phe
 50 55 60
 Gln Lys Met Cys Asp Leu Leu Phe Val Met Phe Ala Val Val Phe Ile
 65 70 75 80
 Thr Thr Arg Leu Gly Ile Phe Pro Leu Trp Val Leu Asn Thr Thr Leu
 85 90 95
 Phe Glu Ser Trp Glu Ile Val Gly Pro Tyr Pro Ser Trp Trp Val Phe
 100 105 110
 Asn Leu Leu Leu Leu Leu Val Gln Gly Leu Asn Cys Phe Trp Ser Tyr
 115 120 125
 Leu Ile Val Lys Ile Ala Cys Lys Ala Val Ser Arg Gly Lys Val Ser
 130 135 140
 Lys Asp Asp Arg Ser Asp Ile Glu Ser Ser Ser Asp Glu Glu Asp Ser
 145 150 155 160
 Glu Pro Pro Gly Lys Asn Pro His Thr Ala Thr Thr Thr Asn Gly Thr
 165 170 175
 Ser Gly Thr Asn Gly Tyr Leu Leu Thr Gly Ser Cys Ser Met Asp Asp
 180 185 190

<210> 266

<211> 1838

<212> PRT

<213> Homo sapiens

<400> 266

Met Asp Val His Thr Arg Trp Lys Ala Arg Ser Ala Leu Arg Pro Gly
 1 5 10 15
 Ala Pro Leu Leu Pro Pro Leu Leu Leu Leu Trp Ala Pro Pro
 20 25 30
 Pro Ser Arg Ala Ala Gln Pro Ala Asp Leu Leu Lys Val Leu Asp Phe
 35 40 45
 His Asn Leu Pro Asp Gly Ile Thr Lys Thr Thr Gly Phe Cys Ala Thr
 50 55 60
 Arg Arg Ser Ser Lys Gly Pro Asp Val Ala Tyr Arg Val Thr Lys Asp

65	Ala	Gln	Leu	Ser	Ala	Pro	Thr	Lys	Gln	Leu	Tyr	Pro	Ala	Ser	Ala	Phe
				85						90					95	
Pro	Glu	Asp	Phe	Ser	Ile	Leu	Thr	Thr	Thr	Val	Lys	Ala	Lys	Lys	Gly	Ser
			100					105						110		
Gln	Ala	Phe	Leu	Val	Ser	Ile	Tyr	Asn	Glu	Gln	Gly	Ile	Gln	Gln	Ile	
		115					120					125				
Gly	Leu	Glu	Leu	Gly	Arg	Ser	Pro	Val	Phe	Leu	Tyr	Glu	Asp	His	Thr	
		130					135					140				
Gly	Lys	Pro	Gly	Pro	Glu	Asp	Tyr	Pro	Leu	Phe	Arg	Gly	Ile	Asn	Leu	
145					150					155					160	
Ser	Asp	Gly	Lys	Trp	His	Arg	Ile	Ala	Leu	Ser	Val	His	Lys	Lys	Asn	
				165					170					175		
Val	Thr	Leu	Ile	Leu	Asp	Cys	Lys	Lys	Lys	Thr	Thr	Lys	Phe	Leu	Asp	
			180					185					190			
Arg	Ser	Asp	His	Pro	Met	Ile	Asp	Ile	Asn	Gly	Ile	Ile	Val	Phe	Gly	
		195					200					205				
Thr	Arg	Ile	Leu	Asp	Glu	Glu	Val	Phe	Glu	Gly	Asp	Ile	Gln	Gln	Leu	
		210					215					220				
Leu	Phe	Val	Ser	Asp	His	Arg	Ala	Ala	Tyr	Asp	Tyr	Cys	Glu	His	Tyr	
225					230					235					240	
Ser	Pro	Asp	Cys	Asp	Thr	Ala	Val	Pro	Asp	Thr	Pro	Gln	Ser	Gln	Asp	
			245						250					255		
Pro	Asn	Pro	Asp	Glu	Tyr	Tyr	Thr	Glu	Gly	Asp	Gly	Glu	Gly	Glu	Thr	
			260					265					270			
Tyr	Tyr	Tyr	Glu	Tyr	Pro	Tyr	Tyr	Glu	Asp	Pro	Glu	Asp	Leu	Gly	Lys	
		275					280					285				
Glu	Pro	Thr	Pro	Ser	Lys	Lys	Pro	Val	Glu	Ala	Ala	Lys	Glu	Thr	Thr	
		290					295					300				
Glu	Val	Pro	Glu	Glu	Leu	Thr	Pro	Thr	Pro	Thr	Glu	Ala	Ala	Pro	Met	
305					310					315					320	
Pro	Glu	Thr	Ser	Glu	Gly	Ala	Gly	Lys	Glu	Glu	Asp	Val	Gly	Ile	Gly	
			325						330					335		
Asp	Tyr	Asp	Tyr	Val	Pro	Ser	Glu	Asp	Tyr	Tyr	Thr	Pro	Ser	Pro	Tyr	
			340					345					350			
Asp	Asp	Leu	Thr	Tyr	Gly	Glu	Gly	Glu	Glu	Asn	Pro	Asp	Gln	Pro	Thr	
		355					360					365				
Asp	Pro	Gly	Ala	Gly	Ala	Glu	Ile	Pro	Thr	Ser	Thr	Ala	Asp	Thr	Ser	
		370				375					380					
Asn	Ser	Ser	Asn	Pro	Ala	Pro	Pro	Pro	Gly	Glu	Gly	Ala	Asp	Asp	Leu	
385					390					395					400	
Glu	Gly	Glu	Phe	Thr	Glu	Glu	Thr	Ile	Arg	Asn	Leu	Asp	Glu	Asn	Tyr	
			405					410					415			
Tyr	Asp	Pro	Tyr	Tyr	Asp	Pro	Thr	Ser	Ser	Pro	Ser	Glu	Ile	Gly	Pro	
			420					425					430			
Gly	Met	Pro	Ala	Asn	Gln	Asp	Thr	Ile	Tyr	Glu	Gly	Ile	Gly	Gly	Pro	
		435					440					445				
Arg	Gly	Glu	Lys	Gly	Gln	Lys	Gly	Glu	Pro	Ala	Ile	Ile	Glu	Pro	Gly	
		450				455					460					
Met	Leu	Ile	Glu	Gly	Pro	Pro	Gly	Pro	Glu	Gly	Pro	Ala	Gly	Leu	Pro	
465					470				475					480		
Gly	Pro	Pro	Gly	Thr	Met	Gly	Pro	Thr	Gly	Gln	Val	Gly	Asp	Pro	Gly	
			485					490					495			
Glu	Arg	Gly	Pro	Pro	Gly	Arg	Pro	Gly	Leu	Pro	Gly	Ala	Asp	Gly	Leu	
			500					505					510			
Pro	Gly	Pro	Pro	Gly	Thr	Met	Leu	Met	Leu	Pro	Phe	Arg	Phe	Gly	Gly	
		515					520					525				
Gly	Gly	Asp	Ala	Gly	Ser	Lys	Gly	Pro	Met	Val	Ser	Ala	Gln	Glu	Ser	
		530				535					540					
Gln	Ala	Gln	Ala	Ile	Leu	Gln	Gln	Ala	Arg	Leu	Ala	Leu	Arg	Gly	Pro	
545					550					555					560	
Ala	Gly	Pro	Met	Gly	Leu	Thr	Gly	Arg	Pro	Gly	Pro	Val	Gly	Pro	Pro	
			565					570					575			
Gly	Ser	Gly	Gly	Leu	Lys	Gly	Glu	Pro	Gly	Asp	Val	Gly	Pro	Gln	Gly	
		580					585					590				
Pro	Arg	Gly	Val	Gln	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Lys	Pro	Gly	Arg	
		595				600						605				
Arg	Gly	Arg	Ala	Gly	Ser	Asp	Gly	Ala	Arg	Gly	Met	Pro	Gly	Gln	Thr	
		610				615					620					

Gly Pro Lys Gly Asp Arg Gly Phe Asp Gly Leu Ala Gly Leu Pro Gly
 625 630 635 640
 Glu Lys Gly His Arg Gly Asp Pro Gly Pro Ser Gly Pro Pro Gly Pro
 645 650 655
 Pro Gly Asp Asp Gly Glu Arg Gly Asp Asp Gly Glu Val Gly Pro Arg
 660 665 670
 Gly Leu Pro Gly Glu Pro Gly Pro Arg Gly Leu Leu Gly Pro Lys Gly
 675 680 685
 Pro Pro Gly Pro Pro Gly Pro Pro Gly Val Thr Gly Met Asp Gly Gln
 690 695 700
 Pro Gly Pro Lys Gly Asn Val Gly Pro Gln Gly Glu Pro Gly Pro Pro
 705 710 715 720
 Gly Gln Gln Gly Asn Pro Gly Ala Gln Gly Leu Pro Gly Pro Gln Gly
 725 730 735
 Ala Ile Gly Pro Pro Gly Glu Lys Gly Pro Leu Gly Lys Pro Gly Leu
 740 745 750
 Pro Gly Met Pro Gly Ala Asp Gly Pro Pro Gly His Pro Gly Lys Glu
 755 760 765
 Gly Pro Pro Gly Glu Lys Gly Gly Gln Gly Pro Pro Gly Pro Gln Gly
 770 775 780
 Pro Ile Gly Tyr Pro Gly Pro Arg Gly Val Lys Gly Ala Asp Gly Ile
 785 790 795 800
 Arg Gly Leu Lys Gly Thr Lys Gly Glu Lys Gly Glu Asp Gly Phe Pro
 805 810 815
 Gly Phe Lys Gly Asp Met Gly Ile Lys Gly Asp Arg Gly Glu Ile Gly
 820 825 830
 Pro Pro Gly Pro Arg Gly Glu Asp Gly Pro Glu Gly Pro Lys Gly Arg
 835 840 845
 Gly Gly Pro Asn Gly Asp Pro Gly Pro Leu Gly Pro Pro Gly Glu Lys
 850 855 860
 Gly Lys Leu Gly Val Pro Gly Leu Pro Gly Tyr Pro Gly Arg Gln Gly
 865 870 875 880
 Pro Lys Gly Ser Ile Gly Phe Pro Gly Phe Pro Gly Ala Asn Gly Glu
 885 890 895
 Lys Gly Gly Arg Gly Thr Pro Gly Lys Pro Gly Pro Arg Gly Gln Arg
 900 905 910
 Gly Pro Thr Gly Pro Arg Gly Glu Arg Gly Pro Arg Gly Ile Thr Gly
 915 920 925
 Lys Pro Gly Pro Lys Gly Asn Ser Gly Gly Asp Gly Pro Ala Gly Pro
 930 935 940
 Pro Gly Glu Arg Gly Pro Asn Gly Pro Gln Gly Pro Thr Gly Phe Pro
 945 950 955 960
 Gly Pro Lys Gly Pro Gly Pro Pro Gly Lys Asp Gly Leu Pro Gly
 965 970 975
 His Pro Gly Gln Arg Gly Glu Thr Gly Phe Gln Gly Lys Thr Gly Pro
 980 985 990
 Pro Gly Pro Pro Gly Val Val Gly Pro Gln Gly Pro Thr Gly Glu Thr
 995 1000 1005
 Gly Pro Met Gly Glu Arg Gly His Pro Gly Pro Pro Gly Pro Pro
 1010 1015 1020
 Gly Glu Gln Gly Leu Pro Gly Leu Ala Gly Lys Glu Gly Thr Lys
 1025 1030 1035
 Gly Asp Pro Gly Pro Ala Gly Leu Pro Gly Lys Asp Gly Pro Pro
 1040 1045 1050
 Gly Leu Arg Gly Phe Pro Gly Asp Arg Gly Leu Pro Gly Pro Val
 1055 1060 1065
 Gly Ala Leu Gly Leu Lys Gly Asn Glu Gly Pro Pro Gly Pro Pro
 1070 1075 1080
 Gly Pro Ala Gly Ser Pro Gly Glu Arg Gly Pro Ala Gly Ala Ala
 1085 1090 1095
 Gly Pro Ile Gly Ile Pro Gly Arg Pro Gly Pro Gln Gly Pro Pro
 1100 1105 1110
 Gly Pro Ala Gly Glu Lys Gly Ala Pro Gly Glu Lys Gly Pro Gln
 1115 1120 1125
 Gly Pro Ala Gly Arg Asp Gly Leu Gln Gly Pro Val Gly Leu Pro
 1130 1135 1140
 Gly Pro Ala Gly Pro Val Gly Pro Pro Gly Glu Asp Gly Asp Lys
 1145 1150 1155
 Gly Glu Ile Gly Glu Pro Gly Gln Lys Gly Ser Lys Gly Asp Lys

1160	Gly Glu Gln Gly Pro Pro	1165	Gly Pro Thr Gly Pro	1170	Gln Gly Pro Ile
1175	Gly Gln Pro Gly Pro Ser	1180	Gly Ala Asp Gly Glu	1185	Pro Gly Pro Arg
1190	Gly Gln Gln Gly Leu Phe	1195	Gly Gln Lys Gly Asp	1200	Glu Gly Pro Arg
1205	Gly Phe Pro Gly Pro Pro	1210	Gly Pro Val Gly Leu	1215	Gln Gly Leu Pro
1220	Gly Pro Pro Gly Glu Lys	1225	Gly Glu Thr Gly Asp	1230	Val Gly Gln Met
1235	Gly Pro Pro Gly Pro Pro	1240	Gly Pro Arg Gly Pro	1245	Ser Gly Ala Pro
1250	Gly Ala Asp Gly Pro Gln	1255	Gly Pro Pro Gly Gly	1260	Ile Gly Asn Pro
1265	Gly Ala Val Gly Glu Lys	1270	Gly Glu Pro Gly Glu	1275	Ala Gly Glu Pro
1280	Gly Pro Ser Gly Arg Ser	1285	Gly Pro Pro Gly Pro	1290	Lys Gly Glu Arg
1295	Gly Glu Lys Gly Glu Ser	1300	Gly Pro Ser Gly Ala	1305	Ala Gly Pro Pro
1310	Gly Pro Lys Gly Pro Pro	1315	Gly Asp Asp Gly Pro	1320	Lys Gly Ser Pro
1325	Gly Pro Val Gly Phe Pro	1330	Gly Asp Pro Gly Pro	1335	Pro Gly Glu Pro
1340	Gly Pro Ala Gly Gln Asp	1345	Gly Pro Pro Gly Asp	1350	Lys Gly Asp Asp
1355	Gly Glu Pro Gly Gln Thr	1360	Gly Ser Pro Gly Pro	1365	Thr Gly Glu Pro
1370	Gly Pro Ser Gly Pro Pro	1375	Gly Lys Arg Gly Pro	1380	Pro Gly Pro Ala
1385	Gly Pro Glu Gly Arg Gln	1390	Gly Glu Lys Gly Ala	1395	Lys Gly Glu Ala
1400	Gly Leu Glu Gly Pro Pro	1405	Gly Lys Thr Gly Pro	1410	Ile Gly Pro Gln
1415	Gly Ala Pro Gly Lys Pro	1420	Gly Pro Asp Gly Leu	1425	Arg Gly Ile Pro
1430	Gly Pro Val Gly Glu Gln	1435	Gly Leu Pro Gly Ser	1440	Pro Gly Pro Asp
1445	Gly Pro Pro Gly Pro Met	1450	Gly Pro Pro Gly Leu	1455	Pro Gly Leu Lys
1460	Gly Asp Ser Gly Pro Lys	1465	Gly Glu Lys Gly His	1470	Pro Gly Leu Ile
1475	Gly Leu Ile Gly Pro Pro	1480	Gly Glu Gln Gly Glu	1485	Lys Gly Asp Arg
1490	Gly Leu Pro Gly Pro Gln	1495	Gly Ser Ser Gly Pro	1500	Lys Gly Glu Gln
1505	Gly Ile Thr Gly Pro Ser	1510	Gly Pro Ile Gly Pro	1515	Pro Gly Pro Pro
1520	Gly Leu Pro Gly Pro Pro	1525	Gly Pro Lys Gly Ala	1530	Lys Gly Ser Ser
1535	Gly Pro Thr Gly Pro Lys	1540	Gly Glu Ala Gly His	1545	Pro Gly Pro Pro
1550	Gly Pro Pro Gly Pro Pro	1555	Gly Glu Val Ile Gln	1560	Pro Leu Pro Ile
1565	Gln Ala Ser Arg Thr Arg	1570	Arg Asn Ile Asp Ala	1575	Ser Gln Leu Leu
1580	Asp Asp Gly Asn Gly Glu	1585	Asn Tyr Val Asp Tyr	1590	Ala Asp Gly Met
1595	Glu Glu Ile Phe Gly Ser	1600	Leu Asn Ser Leu Lys	1605	Leu Glu Ile Glu
1610	Gln Met Lys Arg Pro Leu	1615	Gly Thr Gln Gln Asn	1620	Pro Ala Arg Thr
1625	Cys Lys Asp Leu Gln Leu	1630	Cys His Pro Asp Phe	1635	Pro Asp Gly Glu
1640	Tyr Trp Val Asp Pro Asn	1645	Gln Gly Cys Ser Arg	1650	Asp Ser Phe Lys
1655	Val Tyr Cys Asn Phe Thr	1660	Ala Gly Gly Ser Thr	1665	Cys Val Phe Pro
1670		1675		1680	

Asp Lys Lys Ser Glu Gly Ala Arg Ile Thr Ser Trp Pro Lys Glu
 1685 1690 1695
 Asn Pro Gly Ser Trp Phe Ser Glu Phe Lys Arg Gly Lys Leu Leu
 1700 1705 1710
 Ser Tyr Val Asp Ala Glu Gly Asn Pro Val Gly Val Val Gln Met
 1715 1720 1725
 Thr Phe Leu Arg Leu Leu Ser Ala Ser Ala His Gln Asn Val Thr
 1730 1735 1740
 Tyr His Cys Tyr Gln Ser Val Ala Trp Gln Asp Ala Ala Thr Gly
 1745 1750 1755
 Ser Tyr Asp Lys Ala Leu Arg Phe Leu Gly Ser Asn Asp Glu Glu
 1760 1765 1770
 Met Ser Tyr Asp Asn Asn Pro Tyr Ile Arg Ala Leu Val Asp Gly
 1775 1780 1785
 Cys Ala Thr Lys Lys Gly Tyr Gln Lys Thr Val Leu Glu Ile Asp
 1790 1795 1800
 Thr Pro Lys Val Glu Gln Val Pro Ile Val Asp Ile Met Phe Asn
 1805 1810 1815
 Asp Phe Gly Glu Ala Ser Lys Phe Gly Phe Glu Val Gly Pro
 1820 1825 1830
 Ala Cys Phe Met Gly
 1835

<210> 267
 <211> 109
 <212> PRT
 <213> Homo sapiens
 <400> 267

Met Lys Phe Ile Ser Thr Ser Leu Leu Leu Met Leu Leu Val Ser Ser
 1 5 10 15
 Leu Ser Pro Val Gln Gly Val Leu Glu Val Tyr Tyr Thr Ser Leu Arg
 20 25 30
 Cys Arg Cys Val Gln Glu Ser Ser Val Phe Ile Pro Arg Arg Phe Ile
 35 40 45
 Asp Arg Ile Gln Ile Leu Pro Arg Gly Asn Gly Cys Pro Arg Lys Glu
 50 55 60
 Ile Ile Val Trp Lys Lys Asn Lys Ser Ile Val Cys Val Asp Pro Gln
 65 70 75 80
 Ala Glu Trp Ile Gln Arg Met Met Glu Val Leu Arg Lys Arg Ser Ser
 85 90 95
 Ser Thr Leu Pro Val Pro Val Phe Lys Arg Lys Ile Pro
 100 105

<210> 268
 <211> 504
 <212> PRT
 <213> Homo sapiens
 <400> 268

Met Phe Pro Arg Glu Lys Thr Trp Asn Ile Ser Phe Ala Gly Cys Gly
 1 5 10 15
 Phe Leu Gly Val Tyr Tyr Val Gly Val Ala Ser Cys Leu Arg Glu His
 20 25 30
 Ala Pro Phe Leu Val Ala Asn Ala Thr His Ile Tyr Gly Ala Ser Ala
 35 40 45
 Gly Ala Leu Thr Ala Thr Ala Leu Val Thr Gly Val Cys Leu Gly Glu
 50 55 60
 Ala Gly Ala Lys Phe Ile Glu Val Ser Lys Glu Ala Arg Lys Arg Phe
 65 70 75 80
 Leu Gly Pro Leu His Pro Ser Phe Asn Leu Val Lys Ile Ile Arg Ser
 85 90 95
 Phe Leu Leu Lys Val Leu Pro Ala Asp Ser His Glu His Ala Ser Gly
 100 105 110
 Arg Leu Gly Ile Ser Leu Thr Arg Val Ser Asp Gly Glu Asn Val Ile
 115 120 125
 Ile Ser His Phe Asn Ser Lys Asp Glu Leu Ile Gln Ala Asn Val Cys
 130 135 140
 Ser Gly Phe Ile Pro Val Tyr Cys Gly Leu Ile Pro Pro Ser Leu Gln
 145 150 155 160
 Gly Val Arg Tyr Val Asp Gly Gly Ile Ser Asp Asn Leu Pro Leu Tyr

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      165      170      175
Glu Leu Lys Asn Thr Ile Thr Val Ser Pro Phe Ser Gly Glu Ser Asp
      180      185      190
Ile Cys Pro Gln Asp Ser Ser Thr Asn Ile His Glu Leu Arg Val Thr
      195      200      205
Asn Thr Ser Ile Gln Phe Asn Leu Arg Asn Leu Tyr Arg Leu Ser Lys
      210      215      220
Ala Leu Phe Pro Pro Glu Pro Leu Val Leu Arg Glu Met Cys Lys Gln
225      230      235      240
Gly Tyr Arg Asp Gly Leu Arg Phe Leu Gln Arg Asn Gly Leu Leu Asn
      245      250      255
Arg Pro Asn Pro Leu Leu Ala Leu Pro Pro Ala Arg Pro His Gly Pro
      260      265      270
Glu Asp Lys Asp Gln Ala Val Glu Ser Ala Gln Ala Glu Asp Tyr Ser
      275      280      285
Gln Leu Pro Gly Glu Asp His Ile Leu Glu His Leu Pro Ala Arg Leu
      290      295      300
Asn Glu Ala Leu Leu Glu Ala Cys Val Glu Pro Thr Asp Leu Leu Thr
305      310      315      320
Thr Leu Ser Asn Met Leu Pro Val Arg Leu Ala Thr Ala Met Met Val
      325      330      335
Pro Tyr Thr Leu Pro Leu Glu Ser Ala Leu Ser Phe Thr Ile Arg Leu
      340      345      350
Leu Glu Trp Leu Pro Asp Val Pro Glu Asp Ile Arg Trp Met Lys Glu
      355      360      365
Gln Thr Gly Ser Ile Cys Gln Tyr Leu Val Met Arg Ala Lys Arg Lys
      370      375      380
Leu Gly Arg His Leu Pro Ser Arg Leu Pro Glu Gln Val Glu Leu Arg
385      390      395      400
Arg Val Gln Ser Leu Pro Ser Val Pro Leu Ser Cys Ala Ala Tyr Arg
      405      410      415
Glu Ala Leu Pro Gly Trp Met Arg Asn Asn Leu Ser Leu Gly Asp Ala
      420      425      430
Leu Ala Lys Trp Glu Glu Cys Gln Arg Gln Leu Leu Leu Gly Leu Phe
      435      440      445
Cys Thr Asn Val Ala Phe Pro Pro Glu Ala Leu Arg Met Arg Ala Pro
      450      455      460
Ala Asp Pro Ala Pro Ala Pro Ala Asp Pro Ala Ser Pro Gln His Gln
465      470      475      480
Pro Ala Gly Pro Ala Pro Leu Leu Ser Thr Pro Ala Pro Glu Ala Arg
      485      490      495
Pro Val Ile Gly Ala Leu Gly Leu
500

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<210> 269

<211> 1498

<212> PRT

<213> Homo sapiens

<400> 269

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Met Val Ala Leu Arg Gly Leu Gly Ser Gly Leu Gln Pro Trp Cys Pro
1      5      10      15
Leu Asp Leu Arg Leu Glu Trp Val Asp Thr Val Trp Glu Leu Asp Phe
      20      25      30
Thr Glu Thr Glu Pro Leu Asp Pro Ser Ile Glu Ala Glu Ile Ile Glu
      35      40      45
Thr Gly Leu Ala Ala Phe Thr Lys Leu Tyr Glu Ser Leu Leu Pro Phe
      50      55      60
Ala Thr Gly Glu His Gly Ser Met Glu Ser Ile Trp Thr Phe Phe Ile
65      70      75      80
Glu Asn Asn Val Ser His Ser Thr Leu Val Ala Leu Phe Tyr His Phe
      85      90      95
Val Gln Ile Val His Lys Lys Asn Val Ser Val Gln Tyr Arg Glu Tyr
      100      105      110
Gly Leu His Ala Ala Gly Leu Tyr Phe Leu Leu Leu Glu Val Pro Gly
      115      120      125
Ser Val Ala Asn Gln Val Phe His Pro Val Met Phe Asp Lys Cys Ile
      130      135      140
Gln Thr Leu Lys Lys Ser Trp Pro Gln Glu Ser Asn Leu Asn Arg Lys
145      150      155      160

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Arg	Lys	Lys	Glu	Gln	Pro	Lys	Ser	Ser	Gln	Ala	Asn	Pro	Gly	Arg	His
			165						170					175	
Arg	Lys	Arg	Gly	Lys	Pro	Pro	Arg	Arg	Glu	Asp	Ile	Glu	Met	Asp	Glu
			180					185					190		
Ile	Ile	Glu	Glu	Gln	Glu	Asp	Glu	Asn	Ile	Cys	Phe	Ser	Ala	Arg	Asp
		195					200					205			
Leu	Ser	Gln	Ile	Arg	Asn	Ala	Ile	Phe	His	Leu	Leu	Lys	Asn	Phe	Leu
	210				215						220				
Arg	Leu	Leu	Pro	Lys	Phe	Ser	Leu	Lys	Glu	Lys	Pro	Gln	Cys	Val	Gln
225				230					235						240
Asn	Cys	Ile	Glu	Val	Phe	Val	Ser	Leu	Thr	Asn	Phe	Glu	Pro	Val	Leu
			245						250					255	
His	Glu	Cys	His	Val	Thr	Gln	Ala	Arg	Ala	Leu	Asn	Gln	Ala	Lys	Tyr
			260					265					270		
Ile	Pro	Glu	Leu	Ala	Tyr	Tyr	Gly	Leu	Tyr	Leu	Leu	Cys	Ser	Pro	Ile
		275					280					285			
His	Gly	Glu	Gly	Asp	Lys	Val	Ile	Ser	Cys	Val	Phe	His	Gln	Met	Leu
	290				295						300				
Ser	Val	Ile	Leu	Met	Leu	Glu	Val	Gly	Glu	Gly	Ser	His	Arg	Ala	Pro
305				310						315					320
Leu	Ala	Val	Thr	Ser	Gln	Val	Ile	Asn	Cys	Arg	Asn	Gln	Ala	Val	Gln
			325						330					335	
Phe	Ile	Ser	Ala	Leu	Val	Asp	Glu	Leu	Lys	Glu	Ser	Ile	Phe	Pro	Val
			340				345						350		
Val	Arg	Ile	Leu	Leu	Gln	His	Ile	Cys	Ala	Lys	Val	Val	Asp	Lys	Ser
		355				360						365			
Glu	Tyr	Arg	Thr	Phe	Ala	Ala	Gln	Ser	Leu	Val	Gln	Leu	Leu	Ser	Lys
	370				375						380				
Leu	Pro	Cys	Gly	Glu	Tyr	Ala	Met	Phe	Ile	Ala	Trp	Leu	Tyr	Lys	Tyr
385				390						395					400
Ser	Arg	Ser	Ser	Lys	Ile	Pro	His	Arg	Val	Phe	Thr	Leu	Asp	Val	Val
			405						410					415	
Leu	Ala	Leu	Leu	Glu	Leu	Pro	Glu	Arg	Glu	Val	Asp	Asn	Thr	Leu	Ser
		420					425						430		
Leu	Glu	His	Gln	Lys	Phe	Leu	Lys	His	Lys	Phe	Leu	Val	Gln	Glu	Ile
		435				440						445			
Met	Phe	Asp	Arg	Cys	Leu	Asp	Lys	Ala	Pro	Thr	Val	Arg	Ser	Lys	Ala
	450				455						460				
Leu	Ser	Ser	Phe	Ala	His	Cys	Leu	Glu	Leu	Thr	Val	Thr	Ser	Ala	Ser
465				470						475					480
Glu	Ser	Ile	Leu	Glu	Leu	Ile	Asn	Ser	Pro	Thr	Phe	Ser	Val	Ile	
			485				490						495		
Glu	Ser	His	Pro	Gly	Thr	Leu	Leu	Arg	Asn	Ser	Ser	Ala	Phe	Ser	Tyr
		500					505						510		
Gln	Arg	Gln	Thr	Ser	Asn	Arg	Ser	Glu	Pro	Ser	Gly	Glu	Ile	Asn	Ile
		515				520						525			
Asp	Ser	Ser	Gly	Glu	Thr	Val	Gly	Ser	Gly	Glu	Arg	Cys	Val	Met	Ala
	530				535						540				
Met	Leu	Arg	Arg	Arg	Ile	Arg	Asp	Glu	Lys	Thr	Asn	Val	Arg	Lys	Ser
545				550						555					560
Ala	Leu	Gln	Val	Leu	Val	Ser	Ile	Leu	Lys	His	Cys	Asp	Val	Ser	Gly
			565						570					575	
Met	Lys	Glu	Asp	Leu	Trp	Ile	Leu	Gln	Asp	Gln	Cys	Arg	Asp	Pro	Ala
		580					585						590		
Val	Ser	Val	Arg	Lys	Gln	Ala	Leu	Gln	Ser	Leu	Thr	Glu	Leu	Leu	Met
		595					600					605			
Ala	Gln	Pro	Arg	Cys	Val	Gln	Ile	Gln	Lys	Ala	Trp	Leu	Arg	Gly	Val
	610					615					620				
Val	Pro	Val	Val	Met	Asp	Cys	Glu	Ser	Thr	Val	Gln	Glu	Lys	Ala	Leu
625				630						635					640
Glu	Phe	Leu	Asp	Gln	Leu	Leu	Leu	Gln	Asn	Ile	Arg	His	His	Ser	His
			645						650					655	
Phe	His	Ser	Gly	Asp	Asp	Ser	Gln	Val	Leu	Ala	Trp	Ala	Leu	Leu	Thr
			660				665						670		
Leu	Leu	Thr	Thr	Glu	Ser	Gln	Glu	Leu	Ser	Arg	Tyr	Leu	Asn	Lys	Ala
		675					680					685			
Phe	His	Ile	Trp	Ser	Lys	Lys	Glu	Lys	Phe	Ser	Pro	Thr	Phe	Ile	Asn
	690					695					700				
Asn	Val	Ile	Ser	His	Thr	Gly	Thr	Glu	His	Ser	Ala	Pro	Ala	Trp	Met

705					710				715				720
Leu	Leu	Ser	Lys	Ile	Ala	Gly	Ser	Ser	Pro	Arg	Leu	Asp	Tyr
				725					730				735
Ile	Ile	Gln	Ser	Trp	Glu	Lys	Ile	Ser	Ser	Gln	Gln	Asn	Pro
			740						745				750
Asn	Thr	Leu	Gly	His	Ile	Leu	Cys	Val	Ile	Gly	His	Ile	Ala
		755					760					765	
Leu	Pro	Lys	Ser	Thr	Arg	Asp	Lys	Val	Thr	Asp	Ala	Val	Lys
	770					775					780		
Leu	Asn	Gly	Phe	Gln	Trp	Ser	Leu	Glu	Val	Ile	Ser	Ser	Ala
	785				790					795			800
Ala	Leu	Gln	Arg	Leu	Cys	Arg	Ala	Ser	Ala	Glu	Thr	Pro	Ala
				805					810				815
Gln	Glu	Leu	Leu	Thr	Gln	Val	Cys	Gly	Asp	Val	Leu	Ser	Thr
			820					825					830
His	Arg	Leu	Ser	Asn	Ile	Val	Leu	Lys	Glu	Asn	Gly	Thr	Gly
	835						840					845	
Asp	Glu	Asp	Leu	Leu	Val	Lys	Tyr	Ile	Phe	Thr	Leu	Gly	Asp
	850					855					860		
Gln	Leu	Cys	Pro	Ala	Arg	Val	Glu	Lys	Arg	Ile	Phe	Leu	Leu
	865				870					875			880
Ser	Val	Leu	Ala	Ser	Ser	Ala	Asp	Ala	Asp	His	Ser	Pro	Ser
				885					890				895
Gly	Ser	Ser	Glu	Ala	Pro	Ala	Ser	Gln	Pro	Pro	Pro	Gln	Val
		900						905					910
Ser	Val	Met	Pro	Ser	Val	Ile	Arg	Ala	His	Ala	Ile	Ile	Thr
	915						920					925	
Lys	Leu	Cys	Leu	Gln	His	Glu	Asp	Leu	Ala	Lys	Lys	Ser	Ile
	930					935					940		
Leu	Val	Arg	Glu	Leu	Glu	Val	Cys	Glu	Asp	Val	Ala	Val	Arg
	945				950				955				960
Val	Ile	Ile	Val	Met	Cys	Asp	Leu	Cys	Ile	Arg	Tyr	Thr	Ile
			965						970				975
Asp	Lys	Tyr	Ile	Pro	Asn	Ile	Ser	Met	Cys	Leu	Lys	Asp	Ser
		980						985				990	
Phe	Ile	Arg	Lys	Gln	Thr	Leu	Ile	Leu	Leu	Thr	Asn	Leu	Leu
	995						1000					1005	
Glu	Phe	Val	Lys	Trp	Lys	Gly	Ser	Leu	Phe	Phe	Arg	Phe	Val
	1010					1015					1020		
Thr	Leu	Ile	Asp	Ser	His	Pro	Asp	Ile	Ala	Ser	Phe	Gly	Glu
	1025					1030					1035		
Cys	Leu	Ala	His	Leu	Leu	Leu	Lys	Arg	Asn	Pro	Val	Met	Phe
	1040					1045					1050		
Gln	His	Phe	Ile	Glu	Cys	Ile	Phe	His	Phe	Asn	Asn	Tyr	Glu
	1055					1060					1065		
His	Glu	Lys	Tyr	Asn	Lys	Phe	Pro	Gln	Ser	Glu	Arg	Glu	Lys
	1070					1075					1080		
Leu	Phe	Ser	Leu	Lys	Gly	Lys	Ser	Asn	Lys	Glu	Arg	Arg	Met
	1085					1090					1095		
Ile	Tyr	Lys	Phe	Leu	Leu	Glu	His	Phe	Thr	Asp	Glu	Gln	Arg
	1100					1105					1110		
Asn	Ile	Thr	Ser	Lys	Ile	Cys	Leu	Ser	Ile	Leu	Ala	Cys	Phe
	1115					1120					1125		
Asp	Gly	Ile	Leu	Pro	Leu	Asp	Leu	Asp	Ala	Ser	Glu	Leu	Leu
	1130					1135					1140		
Asp	Thr	Phe	Glu	Val	Leu	Ser	Ser	Lys	Glu	Ile	Lys	Leu	Leu
	1145					1150					1155		
Met	Arg	Ser	Lys	Pro	Asp	Lys	Asp	Leu	Leu	Met	Glu	Glu	Asp
	1160					1165					1170		
Met	Ala	Leu	Ala	Asn	Val	Val	Met	Gln	Glu	Ala	Gln	Lys	Lys
	1175					1180					1185		
Ile	Ser	Gln	Val	Gln	Lys	Arg	Asn	Phe	Ile	Glu	Asn	Ile	Ile
	1190					1195					1200		
Ile	Ile	Ile	Ser	Leu	Lys	Thr	Val	Leu	Glu	Lys	Asn	Lys	Ile
	1205					1210					1215		
Ala	Leu	Arg	Glu	Leu	Met	His	Tyr	Leu	Arg	Glu	Val	Met	Gln
	1220					1225					1230		
Tyr	Arg	Asp	Glu	Leu	Lys	Asp	Phe	Phe	Ala	Val	Asp	Lys	Gln
	1235					1240					1245		

Ala Ser Glu Leu Glu Tyr Asp Met Lys Lys Tyr Gln Glu Gln Leu
 1250 1255 1260
 Val Gln Glu Gln Glu Leu Ala Lys His Ala Asp Val Ala Gly Thr
 1265 1270 1275
 Ala Gly Gly Ala Glu Val Ala Pro Val Ala Gln Val Ala Leu Cys
 1280 1285 1290
 Leu Glu Thr Val Pro Val Pro Ala Gly Gln Glu Asn Pro Ala Met
 1295 1300 1305
 Ser Pro Ala Val Ser Gln Pro Cys Thr Pro Arg Ala Ser Ala Gly
 1310 1315 1320
 His Val Ala Val Ser Ser Pro Thr Pro Glu Thr Gly Pro Leu Gln
 1325 1330 1335
 Arg Leu Leu Pro Lys Ala Arg Pro Met Ser Leu Ser Thr Ile Ala
 1340 1345 1350
 Ile Leu Asn Ser Val Lys Lys Ala Val Glu Ser Lys Ser Arg His
 1355 1360 1365
 Arg Ser Arg Ser Leu Gly Val Leu Pro Phe Thr Leu Asn Ser Gly
 1370 1375 1380
 Ser Pro Glu Lys Thr Cys Ser Gln Val Ser Ser Tyr Ser Leu Glu
 1385 1390 1395
 Gln Glu Ser Asn Gly Glu Ile Glu His Val Thr Lys Arg Ala Ile
 1400 1405 1410
 Ser Thr Pro Glu Lys Ser Ile Ser Asp Val Thr Phe Gly Ala Gly
 1415 1420 1425
 Val Ser Tyr Ile Gly Thr Pro Arg Thr Pro Ser Ser Ala Lys Glu
 1430 1435 1440
 Lys Ile Glu Gly Arg Ser Gln Gly Asn Asp Ile Leu Cys Leu Ser
 1445 1450 1455
 Leu Pro Asp Lys Pro Pro Pro Gln Pro Gln Gln Trp Asn Val Arg
 1460 1465 1470
 Ser Pro Ala Arg Asn Lys Asp Thr Pro Ala Cys Ser Arg Arg Ser
 1475 1480 1485
 Leu Arg Lys Thr Pro Leu Lys Thr Ala Asn
 1490 1495

<210> 270

<211> 551

<212> PRT

<213> Homo sapiens

<400> 270

Met Pro Thr Pro Gly Ala Ala Ser Leu Leu Ser Ala Val Gln Ala Gln
 1 5 10 15
 Glu Arg Arg Leu Tyr Val Pro Leu Pro Gly Gly Phe Ser Val Pro Pro
 20 25 30
 Val Thr Pro Met Pro His Cys Leu Asp Pro Lys Glu Asp Leu Lys
 35 40 45
 Gly Cys Pro Gln Ala Cys Ser Gly Cys Ser Met Gly Thr Pro Ala Pro
 50 55 60
 Ser Tyr Leu Val Gln Gly Ala Gln Gly Met Pro Leu Arg Lys Ala Ala
 65 70 75 80
 Ser Leu Ala Thr Lys Leu Glu Glu Met Gly Leu Phe Gly Gln Gln Cys
 85 90 95
 Leu Pro Ala Met Gly Tyr Thr Cys Arg Cys Arg Glu Pro Leu Leu Leu
 100 105 110
 Pro Ser His Leu Ile Gly Val Gly Phe Pro Gln Ala Pro Ala Pro Gln
 115 120 125
 Leu Leu Ser Ala Leu Leu Leu Leu Pro Ala Pro Pro Ser Pro Ala Gln
 130 135 140
 Ser Glu Val His Pro Pro Val Arg Gly Ala Glu Gln Cys Cys Lys Leu
 145 150 155 160
 Ser Ala Pro Glu Tyr Pro Gly Asp Leu Leu Asn Cys Thr Phe Ser Phe
 165 170 175
 Cys Lys Pro Glu Leu Ser Leu Cys Thr Ser Asn Leu Leu Pro Gly Asn
 180 185 190
 Ala Ala Val Thr Glu Gln Ser Gly Lys Val Leu Asp Asn Thr Leu Gly
 195 200 205
 Gly Asn Phe Ser Leu Lys Cys Ile Gly Ala Glu Thr Arg Thr Pro Cys
 210 215 220
 Gln Ala Ala Leu Trp Val Phe Glu Ala Lys Val Ser Arg Leu Met Lys

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225          230          235          240
Ser Ala Ser Cys Gln Arg Gln Arg Ile His Trp Gln Gln Gly Ala Leu
          245          250          255
Ala Ala Val Arg Gln Gly Asp Leu Gly Leu Lys Tyr Lys Glu Ile Ser
          260          265          270
Cys Lys Asp Ala Gly Val Phe His Gly Thr Ser Ser Ser Gly Lys Leu
          275          280          285
His Ser His Gly Lys Thr Leu Glu Pro Glu Ser Gly Lys Ala Ile Arg
          290          295          300
Ala Trp Ile Leu Glu Ile Leu Ser Ser Cys Lys Pro Gly Ser Leu Val
305          310          315          320
Gln Met Ala Lys Asn Met Thr Met Asp Arg Ala Cys Ala Tyr Leu Val
          325          330          335
Thr Cys Arg Glu Ala Thr Leu Trp Trp Gly Val Val Ala Gly Ser Leu
          340          345          350
Val Tyr Glu His Gly Asn Gln Lys Pro Ile Pro Val Thr Val Trp Arg
          355          360          365
Gly Gly Glu Arg Arg Gly Met Val Pro Thr Lys Lys Asp Thr Ser Thr
          370          375          380
Ser Val Leu Phe Ile Gln Ile His Val Leu Thr Phe Ser Ala Glu Asn
385          390          395          400
Lys Ile Gln Ser Asn Cys Asn Ser Ser Ser Cys Ile Arg Pro Thr Gly
          405          410          415
Arg Arg Glu Arg Asp Val Thr Asn Gln Thr His Ala Ser Gly Lys Arg
          420          425          430
Cys Val Ala Gly Leu Ala Pro Glu Gly Ser Asp Glu Gly Leu Leu Pro
          435          440          445
Ala Thr Leu Pro Cys Leu Gly Phe Pro Lys Leu Leu Ser Ala Glu Glu
          450          455          460
Arg Ala Asn His Gly Gln Pro Arg Asn Thr Arg Pro Cys Gln Leu Asp
465          470          475          480
Leu Asp Cys Ala Ile Phe Gly His Phe His Thr Leu Pro Asn Lys Leu
          485          490          495
Leu Leu Val Ser Val Ser Glu Ile Leu Thr Ser Glu Ile Leu Thr Leu
          500          505          510
Ala Asn Leu Leu Gln Gly Cys Gln His Glu Pro Glu Arg Tyr Gly His
          515          520          525
Val Thr Asp Pro Glu His Lys Thr Thr Ser Ala Phe Thr Val Ser Lys
          530          535          540
Ala Ser Arg Trp Arg Lys Asn
545          550

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<210> 271
<211> 2779
<212> PRT
<213> Homo sapiens
<400> 271

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Met Gln Gly Asp Leu Lys Thr Thr Asp Ile Ser Ile Glu Pro Pro Ser
1          5          10          15
Ala Gln Leu Glu Val Gln Ala Gly Gln Val Asp Leu Lys Leu Pro Glu
          20          25          30
Gly His Val Pro Glu Gly Ala Gly Leu Lys Gly His Leu Pro Lys Leu
          35          40          45
Gln Met Pro Ser Phe Lys Met Pro Lys Val Asp Arg Lys Gly Pro Gln
          50          55          60
Ile Asp Val Lys Gly Pro Lys Leu Asp Leu Lys Gly Pro Lys Thr Asp
65          70          75          80
Val Thr Ala Pro Asp Val Glu Val Ser Gln Pro Gly Met Glu Val Asp
          85          90          95
Val Glu Ala Pro Gly Ala Lys Leu Asp Gly Ala Arg Leu Glu Gly Asp
          100          105          110
Leu Ser Leu Ala Asp Lys Asp Val Thr Ala Lys Asp Ser Lys Phe Lys
          115          120          125
Met Pro Lys Phe Lys Met Pro Ser Phe Gly Val Ser Ala Pro Gly Lys
          130          135          140
Ser Ile Glu Val Leu Val Asp Val Ser Ala Pro Lys Val Glu Ala Asp
145          150          155          160
Leu Ser Leu Pro Ser Met Gln Gly Asp Leu Lys Asn Thr Asp Ile Ser
          165          170          175

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Ile	Glu	Pro	Pro	Ser	Ala	Gln	Leu	Glu	Val	Gln	Ala	Gly	Gln	Val	Asp
			180					185					190		
Val	Lys	Leu	Pro	Glu	Gly	His	Val	Leu	Glu	Gly	Ala	Gly	Leu	Lys	Gly
		195					200					205			
His	Leu	Pro	Lys	Leu	Gln	Met	Pro	Ser	Phe	Lys	Met	Pro	Lys	Val	Asp
	210					215					220				
Arg	Lys	Gly	Pro	Gln	Ile	Asp	Ile	Lys	Gly	Pro	Lys	Leu	Asp	Leu	Lys
	225				230					235				240	
Gly	Pro	Lys	Met	Asp	Val	Thr	Ala	Pro	Asp	Val	Glu	Val	Ser	Gln	Pro
				245					250					255	
Ser	Met	Glu	Val	Asp	Val	Glu	Ala	Pro	Gly	Ala	Lys	Leu	Asp	Gly	Ala
		260						265					270		
Arg	Leu	Glu	Gly	Asp	Leu	Ser	Leu	Ala	Asp	Lys	Asp	Val	Thr	Ala	Lys
	275						280					285			
Asp	Ser	Lys	Phe	Lys	Met	Pro	Lys	Phe	Lys	Met	Pro	Ser	Tyr	Arg	Ala
	290					295					300				
Ser	Ala	Pro	Gly	Lys	Ser	Ile	Gln	Ala	Ser	Val	Asp	Val	Ser	Ala	Pro
	305				310					315					320
Lys	Ala	Glu	Ala	Asp	Val	Ser	Leu	Pro	Ser	Met	Gln	Gly	Asp	Leu	Lys
				325				330						335	
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Val Gly Pro Gln Arg Lys Thr Leu Val Ser Tyr Val Met Ala Cys Ser
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Ile Gly Asn Ile Thr Ile Gln Asn Leu Lys Asp Pro Val Gln Ile Lys
65     70     75     80
Ile Lys His Thr Arg Thr Gln Glu Val His His Pro Ile Cys Ala Phe
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Trp Asp Leu Asn Lys Asn Lys Ser Phe Gly Gly Trp Asn Thr Ser Gly
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Cys Val Ala His Arg Asp Ser Asp Ala Ser Glu Thr Val Cys Leu Cys
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Ser Gln Leu Asp Ala Arg Asn Thr Lys Val Leu Thr Phe Ile Ser Tyr
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Tyr Val Ala Phe Glu Lys Leu Arg Arg Asp Tyr Pro Ser Lys Ile Leu
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Val Tyr Gly Lys Glu Ser Tyr Gly Lys Glu Lys Gly Asp Glu Phe Cys
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Gly Met Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Leu Asn Ile
370    375    380
Pro Phe Met Tyr Leu Phe Ser Ile Phe Asn Ser Leu Gln Gly Leu Phe
385    390    395    400
Ile Phe Ile Phe His Cys Ala Met Lys Glu Asn Val Gln Lys Gln Trp
405    410    415
Arg Arg His Leu Cys Cys Gly Arg Phe Arg Leu Ala Asp Asn Ser Asp
420    425    430
Trp Ser Lys Thr Ala Thr Asn Ile Lys Lys Ser Ser Asp Asn Leu
435    440    445
Gly Lys Ser Leu Ser Ser Ser Ser Ile Gly Ser Asn Ser Thr Tyr Leu
450    455    460
Thr Ser Lys Ser Lys Ser Ser Ser Thr Thr Tyr Phe Lys Arg Asn Ser
465    470    475    480
His Thr Asp Asn Val Ser Tyr Glu His Ser Phe Asn Lys Ser Gly Ser
485    490    495
Leu Arg Gln Cys Phe His Gly Gln Val Leu Val Lys Thr Gly Pro Cys
500    505    510

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<210>  273

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<211> 355
 <212> PRT
 <213> Homo sapiens
 <400> 273
 Met Ala Ala Pro Ala Phe Glu Pro Gly Arg Gln Ser Asp Leu Leu Val
 1 5 10 15
 Lys Leu Asn Arg Leu Met Glu Arg Cys Leu Arg Asn Ser Lys Cys Ile
 20 25 30
 Asp Thr Glu Ser Leu Cys Val Val Ala Gly Glu Lys Val Trp Gln Ile
 35 40 45
 Arg Val Asp Leu His Leu Leu Asn His Asp Gly Asn Ile Ile Asp Ala
 50 55 60
 Ala Ser Ile Ala Ala Ile Val Ala Leu Cys His Phe Arg Arg Pro Asp
 65 70 75 80
 Val Ser Val Gln Gly Asp Glu Val Thr Leu Tyr Thr Pro Glu Glu Arg
 85 90 95
 Asp Pro Val Pro Leu Ser Ile His His Met Pro Ile Cys Val Ser Phe
 100 105 110
 Ala Phe Phe Gln Gln Gly Thr Tyr Leu Leu Val Asp Pro Asn Glu Arg
 115 120 125
 Glu Glu Arg Val Met Asp Gly Leu Leu Val Ile Ala Met Asn Lys His
 130 135 140
 Arg Glu Ile Cys Thr Ile Gln Ser Ser Gly Gly Ile Met Leu Leu Lys
 145 150 155 160
 Asp Gln Val Leu Arg Cys Ser Lys Ile Ala Gly Val Lys Val Ala Glu
 165 170 175
 Ile Thr Glu Leu Ile Leu Lys Ala Leu Glu Asn Asp Gln Lys Val Arg
 180 185 190
 Lys Glu Gly Gly Lys Phe Gly Phe Ala Glu Ser Ile Ala Asn Gln Arg
 195 200 205
 Ile Thr Ala Phe Lys Met Glu Lys Ala Pro Ile Asp Thr Ser Asp Val
 210 215 220
 Glu Glu Lys Ala Glu Glu Ile Ile Ala Glu Ala Glu Pro Pro Ser Glu
 225 230 235 240
 Val Val Ser Thr Pro Val Leu Trp Thr Pro Gly Thr Ala Gln Ile Gly
 245 250 255
 Glu Gly Val Glu Asn Ser Trp Gly Asp Leu Glu Asp Ser Glu Lys Glu
 260 265 270
 Asp Asp Glu Gly Gly Gly Asp Gln Ala Ile Ile Leu Asp Gly Ile Lys
 275 280 285
 Met Asp Thr Gly Val Glu Val Ser Asp Ile Gly Ser Gln Asp Ala Pro
 290 295 300
 Ile Ile Leu Ser Asp Ser Glu Glu Glu Glu Met Ile Ile Leu Glu Pro
 305 310 315 320
 Asp Lys Asn Pro Lys Lys Ile Arg Thr Gln Thr Thr Ser Ala Lys Gln
 325 330 335
 Glu Lys Ala Pro Ser Lys Lys Pro Val Lys Arg Arg Lys Lys Lys Arg
 340 345 350
 Ala Ala Asn
 355

<210> 274
 <211> 940
 <212> PRT
 <213> Homo sapiens
 <400> 274
 Met Ile Leu Glu Gln Tyr Val Val Val Ser Asn Tyr Lys Lys Gln Glu
 1 5 10 15
 Asn Ser Glu Leu Ser Leu Gln Ala Gly Glu Val Val Asp Val Ile Glu
 20 25 30
 Lys Asn Glu Ser Gly Trp Trp Phe Val Ser Thr Ser Glu Glu Gln Gly
 35 40 45
 Trp Val Pro Ala Thr Tyr Leu Glu Ala Gln Asn Gly Thr Arg Asp Asp
 50 55 60
 Ser Asp Ile Asn Thr Ser Lys Thr Gly Glu Glu Glu Lys Tyr Val Thr
 65 70 75 80
 Val Gln Pro Tyr Thr Ser Gln Ser Lys Asp Glu Ile Gly Phe Glu Lys
 85 90 95
 Gly Val Thr Val Glu Val Ile Arg Lys Asn Leu Glu Gly Trp Trp Tyr

- 322 -

Ala Tyr Gln Lys Val Gln Asp Ser Glu Ile Ser Phe Pro Ala Gly Val
 660 665 670
 Glu Val Gln Val Leu Glu Lys Gln Glu Ser Gly Trp Trp Tyr Val Arg
 675 680 685
 Phe Gly Glu Leu Glu Gly Trp Ala Pro Ser His Tyr Leu Val Leu Asp
 690 695 700
 Glu Asn Glu Gln Pro Asp Pro Ser Gly Lys Glu Leu Asp Thr Val Pro
 705 710 715 720
 Ala Lys Gly Arg Gln Asn Glu Gly Lys Ser Asp Ser Leu Glu Lys Ile
 725 730 735
 Glu Arg Arg Val Gln Ala Leu Asn Thr Val Asn Gln Ser Lys Lys Ala
 740 745 750
 Thr Pro Pro Ile Pro Ser Lys Pro Pro Gly Gly Phe Gly Lys Thr Ser
 755 760 765
 Gly Thr Pro Ala Val Lys Met Arg Asn Gly Val Arg Gln Val Ala Val
 770 775 780
 Arg Pro Gln Ser Val Phe Val Ser Pro Pro Pro Lys Asp Asn Asn Leu
 785 790 795 800
 Ser Cys Ala Leu Arg Arg Asn Glu Ser Leu Thr Ala Thr Asp Gly Leu
 805 810 815
 Arg Gly Val Arg Arg Asn Ser Ser Phe Ser Thr Ala Arg Ser Ala Ala
 820 825 830
 Ala Glu Ala Lys Gly Arg Leu Ala Glu Arg Ala Ala Ser Gln Gly Ser
 835 840 845
 Asp Ser Pro Leu Leu Pro Ala Gln Arg Asn Ser Ile Pro Val Ser Pro
 850 855 860
 Val Arg Pro Lys Pro Ile Glu Lys Ser Gln Phe Ile His Asn Asn Leu
 865 870 875 880
 Lys Asp Val Tyr Val Ser Ile Ala Asp Tyr Glu Gly Asp Glu Glu Thr
 885 890 895
 Ala Gly Phe Gln Glu Gly Val Ser Met Glu Val Leu Glu Arg Asn Pro
 900 905 910
 Asn Gly Trp Trp Tyr Cys Gln Ile Leu Asp Gly Val Lys Pro Phe Lys
 915 920 925
 Gly Trp Val Pro Ser Asn Tyr Leu Glu Lys Lys Asn
 930 935 940

<210> 275

<211> 871

<212> PRT

<213> Homo sapiens

<400> 275

Met Lys Tyr Ser Cys Cys Ala Leu Val Leu Ala Val Leu Gly Thr Glu
 1 5 10 15
 Leu Leu Gly Ser Leu Cys Ser Thr Val Arg Ser Pro Arg Phe Arg Gly
 20 25 30
 Arg Ile Gln Gln Glu Arg Lys Asn Ile Arg Pro Asn Ile Ile Leu Val
 35 40 45
 Pro Thr Asp Asp Gln Asp Val Glu Leu Gly Ser Leu Gln Val Met Asn
 50 55 60
 Lys Thr Arg Lys Ile Met Glu His Gly Gly Ala Thr Phe Ile Asn Ala
 65 70 75 80
 Phe Val Thr Thr Pro Met Cys Cys Pro Ser Arg Ser Ser Met Leu Thr
 85 90 95
 Gly Lys Tyr Val His Asn His Asn Val Tyr Thr Asn Asn Glu Asn Cys
 100 105 110
 Ser Ser Pro Ser Trp Gln Ala Met His Glu Pro Arg Thr Phe Ala Val
 115 120 125
 Tyr Leu Asn Asn Thr Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu
 130 135 140
 Asn Glu Tyr Asn Gly Ser Tyr Ile Pro Pro Gly Trp Arg Glu Trp Leu
 145 150 155 160
 Gly Leu Ile Lys Asn Ser Arg Phe Tyr Asn Tyr Thr Val Cys Arg Asn
 165 170 175
 Gly Ile Lys Glu Lys His Gly Phe Asp Tyr Ala Lys Asp Tyr Phe Thr
 180 185 190
 Asp Leu Ile Thr Asn Glu Ser Ile Asn Tyr Phe Lys Met Ser Lys Arg
 195 200 205
 Met Tyr Pro His Arg Pro Val Met Met Val Ile Ser His Ala Ala Pro

210	215	220
His Gly Pro Glu Asp Ser	Ala Pro Gln Phe Ser	Lys Leu Tyr Pro Asn
225	230	235
Ala Ser Gln His Ile Thr Pro Ser Tyr Asn Tyr Ala Pro Asn Met Asp		240
	245	250
Lys His Trp Ile Met Gln Tyr Thr Gly Pro Met Leu Pro Ile His Met		255
	260	265
Glu Phe Thr Asn Ile Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser		270
	275	280
Val Asp Asp Ser Val Glu Arg Leu Tyr Asn Met Leu Val Glu Thr Gly		285
	290	295
Glu Leu Glu Asn Thr Tyr Ile Ile Tyr Thr Ala Asp His Gly Tyr His		300
305	310	315
Ile Gly Gln Phe Gly Leu Val Lys Gly Lys Ser Met Pro Tyr Asp Phe		320
	325	330
Asp Ile Arg Val Pro Phe Phe Ile Arg Gly Pro Ser Val Glu Pro Gly		335
	340	345
Ser Ile Val Pro Gln Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile		350
	355	360
Leu Asp Ile Ala Gly Leu Asp Thr Pro Pro Asp Val Asp Gly Lys Ser		365
	370	375
Val Leu Lys Leu Leu Asp Pro Glu Lys Pro Gly Asn Arg Phe Arg Thr		380
385	390	395
Asn Lys Lys Ala Lys Ile Trp Arg Asp Thr Phe Leu Val Glu Arg Gly		400
	405	410
Lys Phe Leu Arg Lys Lys Glu Glu Ser Ser Lys Asn Ile Gln Gln Ser		415
	420	425
Asn His Leu Pro Lys Tyr Glu Arg Val Lys Glu Leu Cys Gln Gln Ala		430
	435	440
Arg Tyr Gln Thr Ala Cys Glu Gln Pro Gly Gln Lys Trp Gln Cys Ile		445
	450	455
Glu Asp Thr Ser Gly Lys Leu Arg Ile His Lys Cys Lys Gly Pro Ser		460
465	470	475
Asp Leu Leu Thr Val Arg Gln Ser Thr Arg Asn Leu Tyr Ala Arg Gly		480
	485	490
Phe His Asp Lys Asp Lys Glu Cys Ser Cys Arg Glu Ser Gly Tyr Arg		495
	500	505
Ala Ser Arg Ser Gln Arg Lys Ser Gln Arg Gln Phe Leu Arg Asn Gln		510
	515	520
Gly Thr Pro Lys Tyr Lys Pro Arg Phe Val His Thr Arg Gln Thr Arg		525
	530	535
Ser Leu Ser Val Glu Phe Glu Gly Glu Ile Tyr Asp Ile Asn Leu Glu		540
545	550	555
Glu Glu Glu Glu Leu Gln Val Leu Gln Pro Arg Asn Ile Ala Lys Arg		560
	565	570
His Asp Glu Gly His Lys Gly Pro Arg Asp Leu Gln Ala Ser Ser Gly		575
	580	585
Gly Asn Arg Gly Arg Met Leu Ala Asp Ser Ser Asn Ala Val Gly Pro		590
	595	600
Pro Thr Thr Val Arg Val Thr His Lys Cys Phe Ile Leu Pro Asn Asp		605
	610	615
Ser Ile His Cys Glu Arg Glu Leu Tyr Gln Ser Ala Arg Ala Trp Lys		620
625	630	635
Asp His Lys Ala Tyr Ile Asp Lys Glu Ile Glu Ala Leu Gln Asp Lys		640
	645	650
Ile Lys Asn Leu Arg Glu Val Arg Gly His Leu Lys Arg Arg Lys Pro		655
	660	665
Glu Glu Cys Ser Cys Ser Lys Gln Ser Tyr Tyr Asn Lys Glu Lys Gly		670
	675	680
Val Lys Lys Gln Glu Lys Leu Lys Ser His Leu His Pro Phe Lys Glu		685
	690	695
Ala Ala Gln Glu Val Asp Ser Lys Leu Gln Leu Phe Lys Glu Asn Asn		700
705	710	715
Arg Arg Arg Lys Lys Glu Arg Lys Glu Lys Arg Arg Gln Arg Lys Gly		720
	725	730
Glu Glu Cys Ser Leu Pro Gly Leu Thr Cys Phe Thr His Asp Asn Asn		735
	740	745
His Trp Gln Thr Ala Pro Phe Trp Asn Leu Gly Ser Phe Cys Ala Cys		750
	755	760
		765

Thr Ser Ser Asn Asn Asn Thr Tyr Trp Cys Leu Arg Thr Val Asn Glu
 770 775 780
 Thr His Asn Phe Leu Phe Cys Glu Phe Ala Thr Gly Phe Leu Glu Tyr
 785 790 795 800
 Phe Asp Met Asn Thr Asp Pro Tyr Gln Leu Thr Asn Thr Val His Thr
 805 810 815
 Val Glu Arg Gly Ile Leu Asn Gln Leu His Val Gln Leu Met Glu Leu
 820 825 830
 Arg Ser Cys Gln Gly Tyr Lys Gln Cys Asn Pro Arg Pro Lys Asn Leu
 835 840 845
 Asp Val Gly Asn Lys Asp Gly Gly Ser Tyr Asp Leu His Arg Gly Gln
 850 855 860
 Leu Trp Asp Gly Trp Glu Gly
 865 870

<210> 276

<211> 1426

<212> PRT

<213> Homo sapiens

<400> 276

Met Asn Asp Trp His Arg Ile Phe Thr Gln Asn Val Leu Val Pro Pro
 1 5 10 15
 His Pro Gln Arg Ala Arg Gln Pro Trp Lys Glu Ser Thr Ala Phe Gln
 20 25 30
 Cys Val Leu Lys Trp Leu Asp Gly Pro Val Ile Arg Gln Gly Val Leu
 35 40 45
 Glu Val Leu Ser Glu Val Glu Cys His Leu Arg Val Ser Phe Phe Asp
 50 55 60
 Val Thr Tyr Arg His Phe Phe Gly Arg Thr Trp Lys Thr Thr Val Lys
 65 70 75 80
 Pro Thr Lys Arg Pro Pro Ser Arg Ile Val Phe Asn Glu Pro Leu Tyr
 85 90 95
 Phe His Thr Ser Leu Asn His Pro His Ile Val Ala Val Val Glu Val
 100 105 110
 Val Ala Glu Gly Lys Lys Arg Asp Gly Ser Leu Gln Thr Leu Ser Cys
 115 120 125
 Gly Phe Gly Ile Leu Arg Ile Phe Ser Asn Gln Pro Asp Ser Pro Ile
 130 135 140
 Ser Ala Ser Gln Asp Lys Arg Leu Arg Leu Tyr His Gly Thr Pro Arg
 145 150 155 160
 Ala Leu Leu His Pro Leu Leu Gln Asp Pro Ala Glu Gln Asn Arg His
 165 170 175
 Met Thr Leu Ile Glu Asn Cys Ser Leu Gln Tyr Thr Leu Lys Pro His
 180 185 190
 Pro Ala Leu Glu Pro Ala Phe His Leu Leu Pro Glu Asn Leu Leu Val
 195 200 205
 Ser Gly Leu Gln Gln Ile Pro Gly Leu Leu Pro Ala His Gly Glu Ser
 210 215 220
 Gly Asp Ala Leu Arg Lys Pro Arg Leu Gln Lys Pro Ile Thr Gly His
 225 230 235 240
 Leu Asp Asp Leu Phe Phe Thr Leu Tyr Pro Ser Leu Glu Lys Phe Glu
 245 250 255
 Glu Glu Leu Leu Glu Leu His Val Gln Asp His Phe Gln Glu Gly Cys
 260 265 270
 Gly Pro Leu Asp Gly Gly Ala Leu Glu Ile Leu Glu Arg Arg Leu Arg
 275 280 285
 Val Gly Val His Asn Gly Leu Gly Phe Val Gln Arg Pro Gln Val Val
 290 295 300
 Val Leu Val Pro Glu Met Asp Val Ala Leu Thr Arg Ser Ala Ser Phe
 305 310 315 320
 Ser Arg Lys Val Val Ser Ser Ser Lys Thr Ser Ser Gly Ser Gln Ala
 325 330 335
 Leu Val Leu Arg Ser Arg Leu Arg Leu Pro Glu Met Val Gly His Pro
 340 345 350
 Ala Phe Ala Val Ile Phe Gln Leu Glu Tyr Val Phe Ser Ser Pro Ala
 355 360 365
 Gly Val Asp Gly Asn Ala Ala Ser Val Thr Ser Leu Ser Asn Leu Ala
 370 375 380
 Cys Met His Met Val Arg Trp Ala Val Trp Asn Pro Leu Leu Glu Ala

385	Asp	Ser	Gly	Arg	Val	Thr	Leu	Pro	Leu	Gln	Gly	Gly	Ile	Gln	Pro	Asn	400
					405					410						415	
Pro	Ser	His	Cys	Leu	Val	Tyr	Lys	Val	Pro	Ser	Ala	Ser	Met	Ser	Ser		
			420							425					430		
Glu	Glu	Val	Lys	Gln	Val	Glu	Ser	Gly	Thr	Leu	Arg	Phe	Gln	Phe	Ser		
		435						440				445					
Leu	Gly	Ser	Glu	Glu	His	Leu	Asp	Ala	Pro	Thr	Glu	Pro	Val	Ser	Gly		
	450					455					460						
Pro	Lys	Val	Glu	Arg	Arg	Pro	Ser	Arg	Lys	Pro	Pro	Thr	Ser	Pro	Ser		
465					470					475					480		
Ser	Pro	Pro	Ala	Pro	Val	Pro	Arg	Val	Leu	Ala	Ala	Pro	Gln	Asn	Ser		
				485					490					495			
Pro	Val	Gly	Pro	Gly	Leu	Ser	Ile	Ser	Gln	Leu	Ala	Ala	Ser	Pro	Arg		
			500					505					510				
Ser	Pro	Thr	Gln	His	Cys	Leu	Ala	Arg	Pro	Thr	Ser	Gln	Leu	Pro	His		
		515					520					525					
Gly	Ser	Gln	Ala	Ser	Pro	Ala	Gln	Ala	Gln	Glu	Phe	Pro	Leu	Glu	Ala		
	530					535					540						
Gly	Ile	Ser	His	Leu	Glu	Ala	Asp	Leu	Ser	Gln	Thr	Ser	Leu	Val	Leu		
545					550				555					560			
Glu	Thr	Ser	Ile	Ala	Glu	Gln	Leu	Gln	Glu	Leu	Pro	Phe	Thr	Pro	Leu		
				565					570					575			
His	Ala	Pro	Ile	Val	Val	Gly	Thr	Gln	Thr	Arg	Ser	Ser	Ala	Gly	Gln		
		580					585						590				
Pro	Ser	Arg	Ala	Ser	Met	Val	Leu	Gln	Ser	Ser	Gly	Phe	Pro	Glu			
		595				600					605						
Ile	Leu	Asp	Ala	Asn	Lys	Gln	Pro	Ala	Glu	Ala	Val	Ser	Ala	Thr	Glu		
	610					615					620						
Pro	Val	Thr	Phe	Asn	Pro	Gln	Lys	Glu	Glu	Ser	Asp	Cys	Leu	Gln	Ser		
625					630				635					640			
Asn	Glu	Met	Val	Leu	Gln	Phe	Leu	Ala	Phe	Ser	Arg	Val	Ala	Gln	Asp		
			645						650					655			
Cys	Arg	Gly	Thr	Ser	Trp	Pro	Lys	Thr	Val	Tyr	Phe	Thr	Phe	Gln	Phe		
		660						665					670				
Tyr	Arg	Phe	Pro	Pro	Ala	Thr	Thr	Pro	Arg	Leu	Gln	Leu	Val	Gln	Leu		
		675					680					685					
Asp	Glu	Ala	Gly	Gln	Pro	Ser	Ser	Gly	Ala	Leu	Thr	His	Ile	Leu	Val		
	690					695					700						
Pro	Val	Ser	Arg	Asp	Gly	Thr	Phe	Asp	Ala	Gly	Ser	Pro	Gly	Phe	Gln		
705					710					715				720			
Leu	Arg	Tyr	Met	Val	Gly	Pro	Gly	Phe	Leu	Lys	Pro	Gly	Glu	Arg	Arg		
			725					730						735			
Cys	Phe	Ala	Arg	Tyr	Leu	Ala	Val	Gln	Thr	Leu	Gln	Ile	Asp	Val	Trp		
		740					745					750					
Asp	Gly	Asp	Ser	Leu	Leu	Leu	Ile	Gly	Ser	Ala	Ala	Val	Gln	Met	Lys		
		755				760						765					
His	Leu	Leu	Arg	Gln	Gly	Arg	Pro	Ala	Val	Gln	Ala	Ser	His	Glu	Leu		
	770					775					780						
Glu	Val	Val	Ala	Thr	Glu	Tyr	Glu	Gln	Asp	Asn	Met	Val	Val	Ser	Gly		
785					790				795					800			
Asp	Met	Leu	Gly	Phe	Gly	Arg	Val	Lys	Pro	Ile	Gly	Val	His	Ser	Val		
			805						810					815			
Val	Lys	Gly	Arg	Leu	His	Leu	Thr	Leu	Ala	Asn	Val	Gly	His	Pro	Cys		
			820					825					830				
Glu	Gln	Lys	Val	Arg	Gly	Cys	Ser	Thr	Leu	Pro	Pro	Ser	Arg	Ser	Arg		
		835					840					845					
Val	Ile	Ser	Asn	Asp	Gly	Ala	Ser	Arg	Phe	Ser	Gly	Gly	Ser	Leu	Leu		
	850					855					860						
Thr	Thr	Gly	Ser	Ser	Arg	Arg	Lys	His	Val	Val	Gln	Ala	Gln	Lys	Leu		
865					870				875					880			
Ala	Asp	Val	Asp	Ser	Glu	Leu	Ala	Ala	Met	Leu	Leu	Thr	His	Ala	Arg		
			885						890					895			
Gln	Gly	Lys	Gly	Pro	Gln	Asp	Val	Ser	Arg	Glu	Ser	Asp	Ala	Thr	Arg		
		900					905					910					
Arg	Arg	Lys	Leu	Glu	Arg	Met	Arg	Ser	Val	Arg	Leu	Gln	Glu	Ala	Gly		
		915					920					925					
Gly	Asp	Leu	Gly	Arg	Arg	Gly	Thr	Ser	Val	Leu	Ala	Gln	Gln	Ser	Val		
	930					935					940						

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Arg Thr Gln His Leu Arg Asp Leu Gln Val Ile Ala Ala Tyr Arg Glu
945                      950                      955                      960
Arg Thr Lys Ala Glu Ser Ile Ala Ser Leu Leu Ser Leu Ala Ile Thr
                      965                      970                      975
Thr Glu His Thr Leu His Ala Thr Leu Gly Val Ala Glu Phe Phe Glu
                      980                      985                      990
Phe Val Leu Lys Asn Pro His Asn Thr Gln His Thr Val Thr Val Glu
                      995                      1000                      1005
Ile Asp Asn Pro Glu Leu Ser Val Ile Val Asp Ser Gln Glu Trp
1010                      1015                      1020
Arg Asp Phe Lys Gly Ala Ala Gly Leu His Thr Pro Val Glu Glu
1025                      1030                      1035
Asp Met Phe His Leu Arg Gly Ser Leu Ala Pro Gln Leu Tyr Leu
1040                      1045                      1050
Arg Pro His Glu Thr Ala His Val Pro Phe Lys Phe Gln Ser Phe
1055                      1060                      1065
Ser Ala Gly Gln Leu Ala Met Val Gln Ala Ser Pro Gly Leu Ser
1070                      1075                      1080
Asn Glu Lys Gly Met Asp Ala Val Ser Pro Trp Lys Ser Ser Ala
1085                      1090                      1095
Val Pro Thr Lys His Ala Lys Val Leu Phe Arg Ala Ser Gly Gly
1100                      1105                      1110
Lys Pro Ile Ala Val Leu Cys Leu Thr Val Glu Leu Gln Pro His
1115                      1120                      1125
Val Val Asp Gln Val Phe Arg Phe Tyr His Pro Glu Leu Ser Phe
1130                      1135                      1140
Leu Lys Lys Ala Ile Arg Leu Pro Pro Trp His Thr Phe Pro Gly
1145                      1150                      1155
Ala Pro Val Gly Met Leu Gly Glu Asp Pro Pro Val His Val Arg
1160                      1165                      1170
Cys Ser Asp Pro Asn Val Ile Cys Glu Thr Gln Asn Val Gly Pro
1175                      1180                      1185
Gly Glu Pro Arg Asp Ile Phe Leu Lys Val Ala Ser Gly Pro Ser
1190                      1195                      1200
Pro Glu Ile Lys Asp Phe Phe Val Ile Ile Tyr Ser Asp Arg Trp
1205                      1210                      1215
Leu Ala Thr Pro Thr Gln Thr Trp Gln Val Tyr Leu His Ser Leu
1220                      1225                      1230
Gln Arg Val Asp Val Ser Cys Val Ala Gly Gln Leu Thr Arg Leu
1235                      1240                      1245
Ser Leu Val Leu Arg Gly Thr Gln Thr Val Arg Lys Val Arg Ala
1250                      1255                      1260
Phe Thr Ser His Pro Gln Glu Leu Lys Thr Asp Pro Lys Gly Val
1265                      1270                      1275
Phe Val Leu Pro Pro Arg Gly Val Gln Asp Leu His Val Gly Val
1280                      1285                      1290
Arg Pro Leu Arg Ala Gly Ser Arg Phe Val His Leu Asn Leu Val
1295                      1300                      1305
Asp Val Asp Cys His Gln Leu Val Ala Ser Trp Leu Val Cys Leu
1310                      1315                      1320
Cys Cys Arg Gln Pro Leu Ile Ser Lys Ala Phe Glu Ile Met Leu
1325                      1330                      1335
Ala Ala Gly Glu Gly Lys Gly Val Asn Lys Arg Ile Thr Tyr Thr
1340                      1345                      1350
Asn Pro Tyr Pro Ser Arg Arg Thr Phe His Leu His Ser Asp His
1355                      1360                      1365
Pro Glu Leu Leu Arg Phe Arg Glu Asp Ser Phe Gln Val Gly Gly
1370                      1375                      1380
Gly Glu Thr Tyr Thr Ile Gly Leu Gln Phe Ala Pro Ser Gln Arg
1385                      1390                      1395
Val Gly Glu Glu Glu Ile Leu Ile Tyr Ile Asn Asp His Glu Asp
1400                      1405                      1410
Lys Asn Glu Glu Ala Phe Cys Val Lys Val Ile Tyr Gln
1415                      1420                      1425

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<210> 277
<211> 146
<212> PRT
<213> Homo sapiens

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<400> 277

Met Met Trp Gln Lys Tyr Ala Gly Ser Arg Arg Ser Met Pro Leu Gly
 1 5 10 15
 Val Arg Ile Leu Phe His Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile
 20 25 30
 Val Tyr Tyr Leu Ile Gln Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys
 35 40 45
 Leu Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu
 50 55 60
 Gly Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn
 65 70 75 80
 Phe Val Asp Ile Val Asp Ala Lys Leu Lys Ile Pro Val Ser Gly Ser
 85 90 95
 Lys Ser Glu Gly Leu Leu Tyr Val His Ser Ser Arg Gly Gly Pro Phe
 100 105 110
 Gln Arg Trp His Leu Asp Glu Val Phe Leu Glu Leu Lys Asp Gly Gln
 115 120 125
 Gln Ile Pro Val Phe Lys Leu Ser Gly Glu Asn Gly Asp Glu Val Lys
 130 135 140
 Lys Glu
 145

<210> 278

<211> 402

<212> PRT

<213> Homo sapiens

<400> 278

Met Lys Glu Thr Arg Gly Tyr Gly Gly Asp Ala Pro Phe Cys Thr Arg
 1 5 10 15
 Leu Asn His Ser Tyr Thr Gly Met Trp Ala Pro Glu Arg Ser Ala Glu
 20 25 30
 Ala Arg Gly Asn Leu Thr Arg Pro Pro Gly Ser Gly Glu Asp Cys Gly
 35 40 45
 Ser Val Ser Val Ala Phe Pro Ile Thr Met Leu Leu Thr Gly Phe Val
 50 55 60
 Gly Asn Ala Leu Ala Met Leu Leu Val Ser Arg Ser Tyr Arg Arg Arg
 65 70 75 80
 Glu Ser Lys Arg Lys Lys Ser Phe Leu Leu Cys Ile Gly Trp Leu Ala
 85 90 95
 Leu Thr Asp Leu Val Gly Gln Leu Leu Thr Thr Pro Val Val Ile Val
 100 105 110
 Val Tyr Leu Ser Lys Gln Arg Trp Glu His Ile Asp Pro Ser Gly Arg
 115 120 125
 Leu Cys Thr Phe Phe Gly Leu Thr Met Thr Val Phe Gly Leu Ser Ser
 130 135 140
 Leu Phe Ile Ala Ser Ala Met Ala Val Glu Arg Ala Leu Ala Ile Arg
 145 150 155 160
 Ala Pro His Trp Tyr Ala Ser His Met Lys Thr Arg Ala Thr Arg Ala
 165 170 175
 Val Leu Leu Gly Val Trp Leu Ala Val Leu Ala Phe Ala Leu Leu Pro
 180 185 190
 Val Leu Gly Val Gly Gln Tyr Thr Val Gln Trp Pro Gly Thr Trp Cys
 195 200 205
 Phe Ile Ser Thr Gly Arg Gly Gly Asn Gly Thr Ser Ser Ser His Asn
 210 215 220
 Trp Gly Asn Leu Phe Phe Ala Ser Ala Phe Ala Phe Leu Gly Leu Leu
 225 230 235 240
 Ala Leu Thr Val Thr Phe Ser Cys Asn Leu Ala Thr Ile Lys Ala Leu
 245 250 255
 Val Ser Arg Cys Arg Ala Lys Ala Thr Ala Ser Gln Ser Ser Ala Gln
 260 265 270
 Trp Gly Arg Ile Thr Thr Glu Thr Ala Ile Gln Leu Met Gly Ile Met
 275 280 285
 Cys Val Leu Ser Val Cys Trp Ser Pro Leu Leu Ile Met Met Leu Lys
 290 295 300
 Met Ile Phe Asn Gln Thr Ser Val Glu His Cys Lys Thr His Thr Glu
 305 310 315 320
 Lys Gln Lys Glu Cys Asn Phe Phe Leu Ile Ala Val Arg Leu Ala Ser
 325 330 335

Leu Asn Gln Ile Leu Asp Pro Trp Val Tyr Leu Leu Leu Arg Lys Ile
 340 345 350
 Leu Leu Arg Lys Phe Cys Gln Met Arg Lys Arg Arg Leu Arg Glu Gln
 355 360 365
 Glu Met Gly Pro Asp Gly Arg Cys Phe Cys His Ala Trp Arg Gln Val
 370 375 380
 Pro Arg Thr Trp Cys Ser Ser His Asp Arg Glu Pro Cys Ser Val Gln
 385 390 395 400
 Leu Ser

<210> 279
 <211> 1741
 <212> PRT
 <213> Homo sapiens
 <400> 279

Met Arg Leu Leu Trp Gly Leu Ile Trp Ala Ser Ser Phe Phe Thr Leu
 1 5 10 15
 Ser Leu Gln Lys Pro Arg Leu Leu Leu Phe Ser Pro Ser Val Val His
 20 25 30
 Leu Gly Val Pro Leu Ser Val Gly Val Gln Leu Gln Asp Val Pro Arg
 35 40 45
 Gly Gln Val Val Lys Gly Ser Val Phe Leu Arg Asn Pro Ser Arg Asn
 50 55 60
 Asn Val Pro Cys Ser Pro Lys Val Asp Phe Thr Leu Ser Ser Glu Arg
 65 70 75 80
 Asp Phe Ala Leu Leu Ser Leu Gln Val Pro Leu Lys Asp Ala Lys Ser
 85 90 95
 Cys Gly Leu His Gln Leu Leu Arg Gly Pro Glu Val Gln Leu Val Ala
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 His Ser Pro Trp Leu Lys Asp Ser Leu Ser Arg Thr Thr Asn Ile Gln
 115 120 125
 Gly Ile Asn Leu Leu Phe Ser Ser Arg Arg Gly His Leu Phe Leu Gln
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 Thr Asp Gln Pro Ile Tyr Asn Pro Gly Gln Arg Val Arg Tyr Arg Val
 145 150 155 160
 Phe Ala Leu Asp Gln Lys Met Arg Pro Ser Thr Asp Thr Ile Thr Val
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 Met Val Glu Asn Ser His Gly Leu Arg Val Arg Lys Lys Glu Val Tyr
 180 185 190
 Met Pro Ser Ser Ile Phe Gln Asp Asp Phe Val Ile Pro Asp Ile Ser
 195 200 205
 Glu Pro Gly Thr Trp Lys Ile Ser Ala Arg Phe Ser Asp Gly Leu Glu
 210 215 220
 Ser Asn Ser Ser Thr Gln Phe Glu Val Lys Lys Tyr Val Leu Pro Asn
 225 230 235 240
 Phe Glu Val Lys Ile Thr Pro Gly Lys Pro Tyr Ile Leu Thr Val Pro
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 Gly His Leu Asp Glu Met Gln Leu Asp Ile Gln Ala Arg Tyr Ile Tyr
 260 265 270
 Gly Lys Pro Val Gln Gly Val Ala Tyr Val Arg Phe Gly Leu Leu Asp
 275 280 285
 Glu Asp Gly Lys Lys Thr Phe Arg Gly Leu Glu Ser Gln Thr Lys
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 Leu Val Asn Gly Gln Ser His Ile Ser Leu Ser Lys Ala Glu Phe Gln
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 Asp Ala Leu Glu Lys Leu Asn Met Gly Ile Thr Asp Leu Gln Gly Leu
 325 330 335
 Arg Leu Tyr Val Ala Ala Ala Ile Ile Glu Ser Pro Gly Gly Glu Met
 340 345 350
 Glu Glu Ala Glu Leu Thr Ser Trp Tyr Phe Val Ser Ser Pro Phe Ser
 355 360 365
 Leu Asp Leu Ser Lys Thr Lys Arg His Leu Val Pro Gly Ala Pro Phe
 370 375 380
 Leu Leu Gln Ala Leu Val Arg Glu Met Ser Gly Ser Pro Ala Ser Gly
 385 390 395 400
 Ile Pro Val Lys Val Ser Ala Thr Val Ser Ser Pro Gly Ser Val Pro
 405 410 415
 Glu Ala Gln Asp Ile Gln Gln Asn Thr Asp Gly Ser Gly Gln Val Ser

[illegible]

Tyr	Val	Arg	Val	Thr	Ala	Ser	Asp	Pro	Leu	Asp	Thr	Leu	Gly	Ser	Glu
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			995				1000					1005			
Gly	Cys	Gly	Glu	Gln	Thr	Met	Ile	Tyr	Leu	Ala	Pro	Thr	Leu	Ala	
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Ala	Ser	Arg	Tyr	Leu	Asp	Lys	Thr	Glu	Gln	Trp	Ser	Thr	Leu	Pro	
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Pro	Glu	Thr	Lys	Asp	His	Ala	Val	Asp	Leu	Ile	Gln	Lys	Gly	Tyr	
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Met	Arg	Ile	Gln	Gln	Phe	Arg	Lys	Ala	Asp	Gly	Ser	Tyr	Ala	Ala	
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Trp	Leu	Ser	Arg	Asp	Ser	Ser	Thr	Trp	Leu	Thr	Ala	Phe	Val	Leu	
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Lys	Val	Leu	Ser	Leu	Ala	Gln	Glu	Gln	Val	Gly	Gly	Ser	Pro	Glu	
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Lys	Leu	Gln	Glu	Thr	Ser	Asn	Trp	Leu	Leu	Ser	Gln	Gln	Gln	Ala	
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Asp	Gly	Ser	Phe	Gln	Asp	Pro	Cys	Pro	Val	Leu	Asp	Arg	Ser	Met	
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Gln	Gly	Gly	Leu	Val	Gly	Asn	Asp	Glu	Thr	Val	Ala	Leu	Thr	Ala	
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Phe	Val	Thr	Ile	Ala	Leu	His	His	Gly	Leu	Ala	Val	Phe	Gln	Asp	
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Glu	Gly	Ala	Glu	Pro	Leu	Lys	Gln	Arg	Val	Glu	Ala	Ser	Ile	Ser	
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Lys	Ala	Asn	Ser	Phe	Leu	Gly	Glu	Lys	Ala	Ser	Ala	Gly	Leu	Leu	
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Thr	Gly	Ser	Gln	Ser	Asn	Ala	Val	Ser	Pro	Thr	Pro	Ala	Pro	Arg	
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Asn	Pro	Ser	Asp	Pro	Met	Pro	Gln	Ala	Pro	Ala	Leu	Trp	Ile	Glu	
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Tyr	Asn	Val	Leu	Asp	Met	Lys	Asn	Thr	Thr	Cys	Gln	Asp	Leu	Gln	
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Ile	Glu	Val	Thr	Val	Lys	Gly	His	Val	Glu	Tyr	Thr	Met	Glu	Ala	
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Asn	Glu	Asp	Tyr	Glu	Tyr	Asp	Glu	Leu	Pro	Ala	Lys	Asp	Asp	Pro	
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Arg	Arg	Asn	Arg	Arg	Arg	Arg	Glu	Ala	Pro	Lys	Val	Val	Glu	Glu	
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Gln	Glu	Ser	Arg	Val	His	Tyr	Thr	Val	Cys	Ile	Trp	Arg	Asn	Gly	
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Lys	Val	Gly	Leu	Ser	Gly	Met	Ala	Ile	Ala	Asp	Val	Thr	Leu	Leu	
	1475					1480					1485				
Ser	Gly	Phe	His	Ala	Leu	Arg	Ala	Asp	Leu	Glu	Lys	Leu	Thr	Ser	

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Leu Ser Asp Arg Tyr Val Ser	His Phe Glu Thr	Glu Gly Pro His
1505	1510	1515
Val Leu Leu Tyr Phe Asp Ser	Val Pro Thr Ser	Arg Glu Cys Val
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Gly Phe Glu Ala Val Gln	Glu Val Pro Val Gly	Leu Val Gln Pro
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Ala Ser Ala Thr Leu Tyr Asp	Tyr Tyr Asn Pro	Glu Arg Arg Cys
1550	1555	1560
Ser Val Phe Tyr Gly Ala Pro	Ser Lys Ser Arg	Leu Leu Ala Thr
1565	1570	1575
Leu Cys Ser Ala Glu Val Cys	Gln Cys Ala Glu	Gly Lys Cys Pro
1580	1585	1590
Arg Gln Arg Arg Ala Leu	Glu Arg Gly Leu Gln	Asp Glu Asp Gly
1595	1600	1605
Tyr Arg Met Lys Phe Ala Cys	Tyr Tyr Pro Arg	Val Glu Tyr Gly
1610	1615	1620
Phe Gln Val Lys Val Leu	Arg Glu Asp Ser Arg	Ala Ala Phe Arg
1625	1630	1635
Leu Phe Glu Thr Lys Ile Thr	Gln Val Leu His	Phe Thr Lys Asp
1640	1645	1650
Val Lys Ala Ala Ala Asn	Gln Met Arg Asn Phe	Leu Val Arg Ala
1655	1660	1665
Ser Cys Arg Leu Arg Leu	Glu Pro Gly Lys Glu	Tyr Leu Ile Met
1670	1675	1680
Gly Leu Asp Gly Ala Thr	Tyr Asp Leu Glu Gly	His Pro Gln Tyr
1685	1690	1695
Leu Leu Asp Ser Asn Ser	Trp Ile Glu Glu Met	Pro Ser Glu Arg
1700	1705	1710
Leu Cys Arg Ser Thr Arg	Gln Arg Ala Ala Cys	Ala Gln Leu Asn
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<210> 280

<211> 2150

<212> PRT

<213> Homo sapiens

<400> 280

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20 25 30	
Gly Pro Gly Tyr Ser Ser Ser Thr Thr Pro Ala Ala Pro Ser Ser Ser	
35 40 45	
Gly Phe Met Ser Phe Arg Glu Gln His Leu Ala Gln Leu Gln Gln Leu	
50 55 60	
Gln Gln Met His Gln Lys Gln Met Gln Cys Val Leu Gln Pro His His	
65 70 75 80	
Leu Pro Pro Pro Pro Leu Pro Pro Pro Pro Val Met Pro Gly Gly Gly	
85 90 95	
Tyr Gly Asp Trp Gln Pro Pro Pro Pro Pro Met Pro Pro Pro Gly	
100 105 110	
Pro Ala Leu Ser Tyr Gln Lys Gln Gln Tyr Lys His Gln Met Leu	
115 120 125	
His His Gln Arg Asp Gly Pro Pro Gly Leu Val Pro Met Glu Leu Glu	
130 135 140	
Ser Pro Pro Glu Ser Pro Pro Val Pro Pro Gly Ser Tyr Met Pro Pro	
145 150 155 160	
Ser Gln Ser Tyr Met Pro Pro Pro Gln Pro Pro Pro Ser Tyr Tyr Pro	
165 170 175	
Pro Thr Ser Ser Gln Pro Tyr Leu Pro Pro Ala Gln Pro Ser Pro Ser	
180 185 190	
Gln Ser Pro Pro Ser Gln Ser Tyr Leu Ala Pro Thr Pro Ser Tyr Ser	
195 200 205	
Ser Ser Ser Ser Ser Ser Gln Ser Tyr Leu Ser His Ser Gln Ser Tyr	
210 215 220	
Leu Pro Ser Ser Gln Ala Ser Pro Ser Arg Pro Ser Gln Gly His Ser	
225 230 235 240	

Lys Ser Gln Leu Leu Ala Pro Pro Pro Pro Ser Ala Pro Pro Gly Asn
 245 250 255
 Lys Thr Thr Val Gln Gln Glu Pro Leu Glu Ser Gly Ala Lys Asn Lys
 260 265 270
 Ser Thr Glu Gln Gln Gln Ala Ala Pro Glu Pro Asp Pro Ser Thr Met
 275 280 285
 Thr Pro Gln Glu Gln Gln Gln Tyr Trp Tyr Arg Gln His Leu Leu Ser
 290 295 300
 Leu Gln Gln Arg Thr Lys Val His Leu Pro Gly His Lys Lys Gly Pro
 305 310 315 320
 Val Val Ala Lys Asp Thr Pro Glu Pro Val Lys Glu Glu Val Thr Val
 325 330 335
 Pro Ala Thr Ser Gln Val Pro Glu Ser Pro Ser Ser Glu Glu Pro Pro
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 Leu Pro Pro Pro Asn Glu Glu Val Pro Pro Pro Leu Pro Pro Glu Glu
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 Pro Gln Ser Glu Asp Pro Glu Glu Asp Ala Arg Leu Lys Gln Leu Gln
 370 375 380
 Ala Ala Ala Ala His Trp Gln Gln His Gln Gln His Arg Val Gly Phe
 385 390 395 400
 Gln Tyr Gln Gly Ile Met Gln Lys His Thr Gln Leu Gln Gln Ile Leu
 405 410 415
 Gln Gln Tyr Gln Gln Ile Ile Gln Pro Pro Pro His Ile Gln Thr Met
 420 425 430
 Ser Val Asp Met Gln Leu Arg His Tyr Glu Met Gln Gln Gln Gln Phe
 435 440 445
 Gln His Leu Tyr Gln Glu Trp Glu Arg Glu Phe Gln Leu Trp Glu Glu
 450 455 460
 Gln Leu His Ser Tyr Pro His Lys Asp Gln Leu Gln Glu Tyr Glu Lys
 465 470 475 480
 Gln Trp Lys Thr Trp Gln Gly His Met Lys Ala Thr Gln Ser Tyr Leu
 485 490 495
 Gln Glu Lys Val Asn Ser Phe Gln Asn Met Lys Asn Gln Tyr Met Gly
 500 505 510
 Asn Met Ser Met Pro Pro Pro Phe Val Pro Tyr Ser Gln Met Pro Pro
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 Pro Leu Pro Thr Met Pro Pro Pro Val Leu Pro Pro Ser Leu Pro Pro
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 Pro Val Met Pro Pro Ala Leu Pro Ala Thr Val Pro Pro Pro Gly Met
 545 550 555 560
 Pro Pro Pro Val Met Pro Pro Ser Leu Pro Thr Ser Val Pro Pro Pro
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 Gly Met Pro Pro Ser Leu Ser Ser Ala Gly Pro Pro Pro Val Leu Pro
 580 585 590
 Pro Pro Ser Leu Ser Ser Ala Gly Pro Pro Pro Val Leu Pro Pro Pro
 595 600 605
 Ser Leu Ser Ser Thr Ala Pro Pro Pro Val Met Pro Leu Pro Pro Leu
 610 615 620
 Ser Ser Ala Thr Pro Pro Pro Gly Ile Pro Pro Gly Val Pro Gln
 625 630 635 640
 Gly Ile Pro Pro Gln Leu Thr Ala Ala Pro Val Pro Pro Ala Ser Ser
 645 650 655
 Ser Gln Ser Ser Gln Val Pro Glu Lys Pro Arg Pro Ala Leu Leu Pro
 660 665 670
 Thr Pro Val Ser Phe Gly Ser Ala Pro Pro Thr Thr Tyr His Pro Pro
 675 680 685
 Leu Gln Ser Ala Gly Pro Ser Glu Gln Val Asn Ser Lys Ala Pro Leu
 690 695 700
 Ser Lys Ser Ala Leu Pro Tyr Ser Ser Phe Ser Ser Asp Gln Gly Leu
 705 710 715 720
 Gly Glu Ser Ser Ala Ala Pro Ser Gln Pro Ile Thr Ala Val Lys Asp
 725 730 735
 Met Pro Val Arg Ser Gly Gly Leu Leu Pro Asp Pro Pro Arg Ser Ser
 740 745 750
 Tyr Leu Glu Ser Pro Arg Gly Pro Arg Phe Asp Gly Pro Arg Arg Phe
 755 760 765
 Glu Asp Leu Gly Ser Arg Cys Glu Gly Pro Arg Pro Lys Gly Pro Arg
 770 775 780
 Phe Glu Gly Asn Arg Pro Asp Gly Pro Arg Pro Arg Tyr Glu Gly His

785					790					795				800	
Pro	Ala	Glu	Gly	Thr	Lys	Ser	Lys	Trp	Gly	Met	Ile	Pro	Arg	Gly	Pro
				805					810					815	
Ala	Ser	Gln	Phe	Tyr	Ile	Thr	Pro	Ser	Thr	Ser	Leu	Ser	Pro	Arg	Gln
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Ser	Gly	Pro	Gln	Trp	Lys	Gly	Pro	Lys	Pro	Ala	Phe	Gly	Gln	Gln	His
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Gln	Gln	Gln	Pro	Lys	Ser	Gln	Ala	Glu	Pro	Leu	Ser	Gly	Asn	Lys	Glu
		850					855					860			
Pro	Leu	Ala	Asp	Thr	Ser	Ser	Asn	Gln	Gln	Lys	Asn	Phe	Lys	Met	Gln
865						870					875				880
Ser	Ala	Ala	Phe	Ser	Ile	Ala	Ala	Asp	Val	Lys	Asp	Val	Lys	Ala	Ala
				885						890					895
Gln	Ser	Asn	Glu	Asn	Leu	Ser	Asp	Ser	Gln	Gln	Glu	Pro	Pro	Lys	Ser
			900					905					910		
Glu	Val	Ser	Glu	Gly	Pro	Val	Glu	Pro	Ser	Asn	Trp	Asp	Gln	Asn	Val
		915					920						925		
Gln	Ser	Met	Glu	Thr	Gln	Ile	Asp	Lys	Ala	Gln	Ala	Val	Thr	Gln	Pro
		930				935					940				
Val	Pro	Leu	Ala	Asn	Lys	Pro	Val	Pro	Ala	Gln	Ser	Thr	Phe	Pro	Ser
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Lys	Thr	Gly	Gly	Met	Glu	Gly	Gly	Thr	Ala	Val	Ala	Thr	Ser	Ser	Leu
				965					970						975
Thr	Ala	Asp	Asn	Asp	Phe	Lys	Pro	Val	Gly	Ile	Gly	Leu	Pro	His	Ser
			980					985					990		
Glu	Asn	Asn	Gln	Asp	Lys	Gly	Leu	Pro	Arg	Pro	Asp	Asn	Arg	Asp	Asn
		995					1000					1005			
Arg	Leu	Glu	Gly	Asn	Arg	Gly	Asn	Ser	Ser	Ser	Tyr	Arg	Gly	Pro	
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Gly	Ser	Gln	Asp	Arg	Gly	Ala	Ala	Gly	Ser	Arg	Glu	Arg	Gly	Pro	
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Pro	Arg	Arg	Ala	Gly	Ser	Gln	Glu	Arg	Gly	Pro	Leu	Arg	Arg	Ala	
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Gly	Ser	Arg	Glu	Arg	Ile	Pro	Pro	Arg	Arg	Ala	Gly	Ser	Arg	Glu	
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Pro	Arg	Ala	Pro	Trp	Asn	His	Gly	Glu	Glu	Arg	Gly	His	Glu	Glu	
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Phe	Pro	Leu	Asp	Gly	Arg	Asn	Ala	Pro	Met	Glu	Arg	Glu	Arg	Leu	
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Asp	Asp	Trp	Asp	Arg	Glu	Arg	Tyr	Trp	Arg	Glu	Cys	Glu	Arg	Asp	
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Tyr	Gln	Asp	Asp	Thr	Leu	Glu	Leu	Tyr	Asn	Arg	Glu	Asp	Arg	Phe	
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Ser	Ala	Pro	Pro	Ser	Arg	Ser	His	Asp	Gly	Asp	Arg	Arg	Gly	Pro	
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Trp	Trp	Asp	Asp	Trp	Glu	Arg	Asp	Gln	Asp	Met	Asp	Glu	Asp	Tyr	
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Ser	Arg	Pro	Met	Asp	Met	Tyr	Asp	Arg	Ser	Leu	Asp	Asn	Glu	Trp	
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Arg	Glu	Arg	Asp	Ile	Pro	Ser	Leu	Pro	Pro	Leu	Pro	Pro	Leu	Pro
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Pro	Leu	Pro	Pro	Leu	Asp	Arg	Tyr	Arg	Asp	Asp	Arg	Trp	Arg	Glu
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Gly	Glu	Leu	Arg	Ile	Arg	Glu	Tyr	Pro	Glu	Arg	Gly	Asp	Thr	Trp
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Arg	Glu	Lys	Arg	Asp	Tyr	Val	Pro	Asp	Arg	Met	Asp	Trp	Glu	Arg
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1400						1405								1410
Ser	Pro	Met	Ala	Glu	His	Met	Pro	Ser	Ser	His	His	Ser	Ser	Glu
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Ala	Ala	Gln	Glu	Leu	Lys	Met	Leu	Arg	Glu	Gln	Lys	Glu	Gln	Leu
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Gln	Lys	Met	Lys	Asp	Phe	Gly	Ser	Glu	Pro	Gln	Met	Ala	Asp	His
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Leu	Pro	Pro	Gln	Glu	Ser	Arg	Leu	Gln	Asn	Thr	Ser	Ser	Arg	Pro
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Gly	Met	Tyr	Pro	Pro	Pro	Gly	Ser	Tyr	Arg	Pro	Pro	Pro	Pro	Met
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Arg	Ser	Ser	Val	Pro	Val	Thr	Arg	Pro	Pro	Val	Pro	Ile	Pro	Pro
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Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Pro	Pro	Pro	Pro	Val	Ile	Lys
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Pro	Gln	Thr	Ser	Ala	Val	Glu	Gln	Glu	Arg	Trp	Asp	Glu	Asp	Ser
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Phe	Tyr	Gly	Leu	Trp	Asp	Thr	Asn	Asp	Glu	Gln	Gly	Leu	Asn	Ser
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Glu	Phe	Lys	Ser	Glu	Thr	Ala	Ala	Ile	Pro	Ser	Ala	Pro	Val	Leu
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Pro	Pro	Pro	Pro	Val	His	Ser	Ser	Ile	Pro	Pro	Pro	Gly	Pro	Val
1610						1615								1620
Pro	Met	Gly	Met	Pro	Pro	Met	Ser	Lys	Pro	Pro	Pro	Val	Gln	Gln
1625						1630								1635
Thr	Val	Asp	Tyr	Gly	His	Gly	Arg	Asp	Ile	Ser	Thr	Asn	Lys	Val
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Glu	Gln	Ile	Pro	Tyr	Gly	Glu	Arg	Ile	Thr	Leu	Arg	Pro	Asp	Pro
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Leu	Pro	Glu	Arg	Ser	Thr	Phe	Glu	Thr	Glu	His	Ala	Gly	Gln	Arg
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Asp	Arg	Tyr	Asp	Arg	Glu	Arg	Asp	Arg	Glu	Pro	Tyr	Phe	Asp	Arg
1685						1690								1695
Gln	Ser	Asn	Val	Ile	Ala	Asp	His	Arg	Asp	Phe	Lys	Arg	Asp	Arg
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Glu	Thr	His	Arg	Asp	Arg	Asp	Arg	Asp	Arg	Gly	Val	Ile	Asp	Tyr
1715						1720								1725
Asp	Arg	Asp	Arg	Phe	Asp	Arg	Glu	Arg	Arg	Pro	Arg	Asp	Asp	Arg
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Ala	Gln	Ser	Tyr	Arg	Asp	Lys	Lys	Asp	His	Ser	Ser	Ser	Arg	Arg
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Val	Asp	Asp	Ile	Leu	Lys	Pro	Pro	Gly	Arg	Glu	Ser	Arg	Pro	Glu
1820						1825								1830
Arg	Ile	Val	Val	Ile	Met	Arg	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Thr

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His Val Ala Lys Leu Ile	Arg Asp Lys Glu Val	Glu Phe Gly Gly
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Pro Ala Pro Arg Val Leu	Ser Leu Asp Asp Tyr	Phe Ile Thr Glu
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Val Glu Lys Glu Glu Lys	Asp Pro Asp Ser Gly	Lys Lys Val Lys
1880	1885	1890
Lys Lys Val Met Glu Tyr	Glu Tyr Glu Ala Glu	Met Glu Glu Thr
1895	1900	1905
Tyr Arg Thr Ser Met Phe	Lys Thr Phe Lys Lys	Thr Leu Asp Asp
1910	1915	1920
Gly Phe Phe Pro Phe Ile	Ile Leu Asp Ala Ile	Asn Asp Arg Val
1925	1930	1935
Arg His Phe Asp Gln Phe	Trp Ser Ala Ala Lys	Thr Lys Gly Phe
1940	1945	1950
Glu Val Tyr Leu Ala Glu	Met Ser Ala Asp Asn	Gln Thr Cys Gly
1955	1960	1965
Lys Arg Asn Ile His Gly	Arg Lys Leu Lys Glu	Ile Asn Lys Met
1970	1975	1980
Ala Asp His Trp Glu Thr	Ala Pro Arg His Met	Met Arg Leu Asp
1985	1990	1995
Ile Arg Ser Leu Leu Gln	Asp Ala Ala Ile Glu	Glu Val Glu Met
2000	2005	2010
Glu Asp Phe Asp Ala Asn	Ile Glu Glu Gln Lys	Glu Glu Lys Lys
2015	2020	2025
Asp Ala Glu Glu Glu Glu	Ser Glu Leu Gly Tyr	Ile Pro Lys Ser
2030	2035	2040
Lys Trp Glu Met Asp Thr	Ser Glu Ala Lys Leu	Asp Lys Leu Asp
2045	2050	2055
Gly Leu Arg Thr Gly Thr	Lys Arg Lys Arg Asp	Trp Glu Ala Ile
2060	2065	2070
Ala Ser Arg Met Glu Asp	Tyr Leu Gln Leu Pro	Asp Asp Tyr Asp
2075	2080	2085
Thr Arg Ala Ser Glu Ala	Lys Ala Ser Arg Ser	Phe Phe Val Cys
2090	2095	2100
His Leu Ala Ser Thr Phe	Gln Phe Leu Phe Cys	Phe Tyr Cys Phe
2105	2110	2115
Ser Phe Phe Asp Ala Glu	Glu Glu Glu Ser Glu	Leu Val Gly Asp
2120	2125	2130
Arg Pro Thr Thr Leu Asn	Ser Val Ser Leu Leu	Lys Phe Leu Lys
2135	2140	2145
Lys Val		
2150		

<210> 281

<211> 979

<212> PRT

<213> Homo sapiens

<400> 281

Met Ser Val Leu Gly Glu Tyr Glu Arg His Cys Asp Ser Ile Asn Ser	
1 5 10 15	
Asp Phe Gly Ser Glu Ser Gly Gly Cys Gly Asp Ser Ser Pro Gly Pro	
20 25 30	
Ser Ala Ser Gln Gly Pro Arg Ala Gly Gly Gly Ala Ala Glu Gln Glu	
35 40 45	
Glu Leu His Tyr Ile Pro Ile Arg Val Leu Gly Arg Gly Ala Phe Gly	
50 55 60	
Glu Ala Thr Leu Tyr Arg Arg Thr Glu Asp Asp Ser Leu Val Val Trp	
65 70 75 80	
Lys Glu Val Asp Leu Thr Arg Leu Ser Glu Lys Glu Arg Arg Asp Ala	
85 90 95	
Leu Asn Glu Ile Val Ile Leu Ala Leu Leu Gln His Asp Asn Ile Ile	
100 105 110	
Ala Tyr Tyr Asn His Phe Met Asp Asn Thr Thr Leu Leu Ile Glu Leu	
115 120 125	
Glu Tyr Cys Asn Gly Gly Asn Leu Tyr Asp Lys Ile Leu Arg Gln Lys	
130 135 140	
Asp Lys Leu Phe Glu Glu Glu Met Val Val Trp Tyr Leu Phe Gln Ile	
145 150 155 160	

Val	Ser	Ala	Val	Ser	Cys	Ile	His	Lys	Ala	Gly	Ile	Leu	His	Arg	Asp
				165					170					175	
Ile	Lys	Thr	Leu	Asn	Ile	Phe	Leu	Thr	Lys	Ala	Asn	Leu	Ile	Lys	Leu
			180					185					190		
Gly	Asp	Tyr	Gly	Leu	Ala	Lys	Lys	Leu	Asn	Ser	Glu	Tyr	Ser	Met	Ala
		195					200					205			
Glu	Thr	Leu	Val	Gly	Thr	Pro	Tyr	Tyr	Met	Ser	Pro	Glu	Leu	Cys	Gln
		210				215					220				
Gly	Val	Lys	Tyr	Asn	Phe	Lys	Ser	Asp	Ile	Trp	Ala	Val	Gly	Cys	Val
225					230					235					240
Ile	Phe	Glu	Leu	Leu	Thr	Leu	Lys	Arg	Thr	Phe	Asp	Ala	Thr	Asn	Pro
				245					250					255	
Leu	Asn	Leu	Cys	Val	Lys	Ile	Val	Gln	Gly	Ile	Arg	Ala	Met	Glu	Val
			260					265					270		
Asp	Ser	Ser	Gln	Tyr	Ser	Leu	Glu	Leu	Ile	Gln	Met	Val	His	Ser	Cys
		275					280					285			
Leu	Asp	Gln	Asp	Pro	Glu	Gln	Arg	Pro	Thr	Ala	Asp	Glu	Leu	Leu	Asp
		290				295					300				
Arg	Pro	Leu	Leu	Arg	Lys	Arg	Arg	Arg	Glu	Met	Glu	Glu	Lys	Val	Thr
305					310					315					320
Leu	Leu	Asn	Ala	Pro	Thr	Lys	Arg	Pro	Arg	Ser	Ser	Thr	Val	Thr	Glu
				325					330					335	
Ala	Pro	Ile	Ala	Val	Thr	Ser	Arg	Thr	Ser	Glu	Val	Tyr	Ile	Trp	
			340				345					350			
Gly	Gly	Gly	Lys	Ser	Thr	Pro	Gln	Lys	Leu	Asp	Val	Ile	Lys	Ser	Gly
		355					360					365			
Cys	Ser	Ala	Arg	Gln	Val	Cys	Ala	Gly	Asn	Thr	His	Phe	Ala	Val	Val
		370					375				380				
Thr	Val	Glu	Lys	Glu	Leu	Tyr	Thr	Trp	Val	Asn	Met	Gln	Gly	Gly	Thr
385					390					395					400
Lys	Leu	His	Gly	Gln	Leu	Gly	His	Gly	Asp	Lys	Ala	Ser	Tyr	Arg	Gln
				405					410					415	
Pro	Lys	His	Val	Glu	Lys	Leu	Gln	Gly	Lys	Ala	Ile	His	Gln	Val	Ser
			420					425					430		
Cys	Gly	Asp	Asp	Phe	Thr	Val	Cys	Val	Thr	Asp	Glu	Gly	Gln	Leu	Tyr
		435					440					445			
Ala	Phe	Gly	Ser	Asp	Tyr	Tyr	Gly	Cys	Met	Gly	Val	Asp	Lys	Val	Ala
		450					455				460				
Gly	Pro	Glu	Val	Leu	Glu	Pro	Met	Gln	Leu	Asn	Phe	Phe	Leu	Ser	Asn
465					470					475					480
Pro	Val	Glu	Gln	Val	Ser	Cys	Gly	Asp	Asn	His	Val	Val	Val	Leu	Thr
				485					490					495	
Arg	Asn	Lys	Glu	Val	Tyr	Ser	Trp	Gly	Cys	Gly	Glu	Tyr	Gly	Arg	Leu
			500					505					510		
Gly	Leu	Asp	Ser	Glu	Glu	Asp	Tyr	Thr	Pro	Gln	Lys	Val	Asp	Val	
		515					520					525			
Pro	Lys	Ala	Leu	Ile	Ile	Val	Ala	Val	Gln	Cys	Gly	Cys	Asp	Gly	Thr
					535							540			
Phe	Leu	Leu	Thr	Gln	Ser	Gly	Lys	Val	Leu	Ala	Cys	Gly	Leu	Asn	Glu
545					550					555					560
Phe	Asn	Lys	Leu	Gly	Leu	Asn	Gln	Cys	Met	Ser	Gly	Ile	Ile	Asn	His
				565					570					575	
Glu	Ala	Tyr	His	Glu	Val	Pro	Tyr	Thr	Thr	Ser	Phe	Thr	Leu	Ala	Lys
			580					585					590		
Gln	Leu	Ser	Phe	Tyr	Lys	Ile	Arg	Thr	Ile	Ala	Pro	Gly	Lys	Thr	His
		595					600					605			
Thr	Ala	Ala	Ile	Asp	Glu	Arg	Gly	Arg	Leu	Leu	Thr	Phe	Gly	Cys	Asn
		610				615					620				
Lys	Cys	Gly	Gln	Leu	Gly	Val	Gly	Asn	Tyr	Lys	Lys	Arg	Leu	Gly	Ile
625					630					635					640
Asn	Leu	Leu	Gly	Gly	Pro	Leu	Gly	Gly	Lys	Gln	Val	Ile	Arg	Val	Ser
				645					650					655	
Cys	Gly	Asp	Glu	Phe	Thr	Ile	Ala	Ala	Thr	Asp	Asp	Asn	His	Ile	Phe
			660					665					670		
Ala	Trp	Gly	Asn	Gly	Gly	Asn	Gly	Arg	Leu	Ala	Met	Thr	Pro	Thr	Glu
		675					680					685			
Arg	Pro	His	Gly	Ser	Asp	Ile	Cys	Thr	Ser	Trp	Pro	Arg	Pro	Ile	Phe
		690				695					700				
Gly	Ser	Leu	His	His	Val	Pro	Asp	Leu	Ser	Cys	Arg	Gly	Trp	His	Thr

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705              710              715              720
Ile Leu Ile Val Glu Lys Val Leu Asn Ser Lys Thr Ile Arg Ser Asn
725              730              735
Ser Ser Gly Leu Ser Ile Gly Thr Val Phe Gln Ser Ser Ser Pro Gly
740              745              750
Gly Gly Gly Gly Gly Gly Gly Gly Glu Glu Glu Asp Ser Gln Gln Glu
755              760              765
Ser Glu Thr Pro Asp Pro Ser Ser Gly Gly Phe Arg Gly Thr Met Glu Ala
770              775              780
Asp Arg Gly Met Glu Gly Leu Ile Ser Pro Thr Glu Ala Met Gly Asn
785              790              795              800
Ser Asn Gly Ala Ser Ser Ser Cys Pro Gly Trp Leu Arg Lys Glu Leu
805              810              815
Glu Asn Ala Glu Phe Ile Pro Met Pro Asp Ser Pro Ser Pro Leu Ser
820              825              830
Ala Ala Phe Ser Glu Ser Glu Lys Asp Thr Leu Pro Tyr Glu Glu Leu
835              840              845
Gln Gly Leu Lys Val Ala Ser Ser Glu Ala Pro Leu Glu His Lys Pro Gln
850              855              860
Val Glu Ala Ser Ser Pro Arg Leu Asn Pro Ala Val Thr Cys Ala Gly
865              870              875              880
Lys Gly Thr Pro Leu Thr Pro Pro Ala Cys Ala Cys Ser Ser Leu Gln
885              890              895
Val Glu Val Glu Arg Leu Gln Gly Leu Val Leu Lys Cys Leu Ala Glu
900              905              910
Gln Gln Lys Leu Gln Gln Glu Asn Leu Gln Ile Phe Thr Gln Leu Gln
915              920              925
Lys Leu Asn Lys Lys Leu Glu Gly Gly Gln Gln Val Gly Met His Ser
930              935              940
Lys Gly Thr Gln Thr Ala Lys Glu Glu Met Glu Met Asp Pro Lys Pro
945              950              955              960
Asp Leu Asp Ser Asp Ser Gly Cys Leu Leu Gly Thr Asp Ser Cys Arg
965              970              975
Pro Ser Leu

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<210> 282
<211> 107
<212> PRT
<213> Homo sapiens
<400> 282
Met Arg Phe Phe Leu Phe Phe Phe Phe Phe Leu Arg Trp Ser Leu Val
1      5      10      15
Ser Pro Arg Leu Glu Cys Ser Gly Leu Val Leu Ala His Cys Asn Leu
20     25     30
His Leu Leu Gly Ser Arg Glu Ser Pro Ala Ser Ala Ser Arg Val Ala
35     40     45
Gly Ile Thr Gly Val Ser His His Thr Gln Thr His Leu Met Ser Phe
50     55     60
Asp Val Lys Ala Cys Asn Ser Asn Pro Tyr Val Trp Asn Ile Cys Ile
65     70     75     80
Thr Ser Glu Phe Phe His Leu Val Asn Ser Cys Thr Ser Leu Ser Cys
85     90     95
Pro Phe Phe Pro Pro Leu Ala Val Ser Tyr Cys
100    105

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<210> 283
<211> 533
<212> PRT
<213> Homo sapiens
<400> 283
Met Thr Lys Lys Arg Ile Ala Val Ile Gly Gly Gly Val Ser Gly Leu
1      5      10      15
Ser Ser Ile Lys Cys Cys Val Glu Glu Gly Leu Glu Pro Val Cys Phe
20     25     30
Glu Arg Thr Asp Asp Ile Gly Gly Leu Trp Arg Phe Gln Glu Asn Pro
35     40     45
Glu Glu Gly Arg Ala Ser Ile Tyr Lys Ser Val Ile Ile Asn Thr Ser
50     55     60

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Lys Glu Met Met Cys Phe Ser Asp Tyr Pro Ile Pro Asp His Tyr Pro
 65 70 75 80
 Asn Phe Met His Asn Ala Gln Val Leu Glu Tyr Phe Arg Met Tyr Ala
 85 90 95
 Lys Glu Phe Asp Leu Leu Lys Tyr Ile Arg Phe Lys Thr Thr Val Cys
 100 105 110
 Ser Val Lys Lys Gln Pro Asp Phe Ala Thr Ser Gly Gln Trp Glu Val
 115 120 125
 Val Thr Glu Ser Glu Gly Lys Lys Glu Met Asn Val Phe Asp Gly Val
 130 135 140
 Met Val Cys Thr Gly His His Thr Asn Ala His Leu Pro Leu Glu Ser
 145 150 155 160
 Phe Pro Gly Ile Glu Lys Phe Lys Gly Gln Tyr Phe His Ser Arg Asp
 165 170 175
 Tyr Lys Asn Pro Glu Gly Phe Thr Gly Lys Arg Val Ile Ile Ile Gly
 180 185 190
 Ile Gly Asn Ser Gly Gly Asp Leu Ala Val Glu Ile Ser Gln Thr Ala
 195 200 205
 Lys Gln Val Phe Leu Ser Thr Arg Arg Gly Ala Trp Ile Leu Asn Arg
 210 215 220
 Val Gly Asp Tyr Gly Tyr Pro Ala Asp Val Leu Phe Ser Ser Arg Leu
 225 230 235 240
 Thr His Phe Ile Trp Lys Ile Cys Gly Gln Ser Leu Ala Asn Lys Tyr
 245 250 255
 Leu Glu Lys Lys Ile Asn Gln Arg Phe Asp His Glu Met Phe Gly Leu
 260 265 270
 Lys Pro Lys His Arg Ala Leu Ser Gln His Pro Thr Leu Asn Asp Asp
 275 280 285
 Leu Pro Asn Arg Ile Ile Ser Gly Leu Val Lys Val Lys Gly Asn Val
 290 295 300
 Lys Glu Phe Thr Glu Thr Ala Ala Ile Phe Glu Asp Gly Ser Arg Glu
 305 310 315 320
 Asp Asp Ile Asp Ala Val Ile Phe Ala Thr Gly Tyr Ser Phe Asp Phe
 325 330 335
 Pro Phe Leu Glu Asp Ser Val Lys Val Val Lys Asn Lys Ile Pro Leu
 340 345 350
 Tyr Lys Lys Val Phe Pro Pro Asn Leu Glu Arg Pro Thr Leu Ala Ile
 355 360 365
 Ile Gly Leu Ile Gln Pro Leu Gly Ala Ile Met Pro Ile Ser Glu Leu
 370 375 380
 Gln Gly Arg Trp Ala Thr Gln Val Phe Lys Gly Leu Lys Thr Leu Pro
 385 390 395 400
 Ser Gln Ser Glu Met Met Ala Glu Ile Ser Lys Ala Gln Glu Glu Ile
 405 410 415
 Asp Lys Arg Tyr Val Glu Ser Gln Arg His Thr Ile Gln Gly Asp Tyr
 420 425 430
 Ile Asp Thr Met Glu Glu Leu Ala Asp Leu Val Gly Val Arg Pro Asn
 435 440 445
 Leu Leu Ser Leu Ala Phe Thr Asp Pro Lys Leu Ala Leu His Leu Leu
 450 455 460
 Leu Gly Pro Cys Thr Pro Ile His Tyr Arg Val Gln Gly Pro Gly Lys
 465 470 475 480
 Trp Asp Gly Ala Arg Lys Ala Ile Leu Thr Thr Asp Asp Arg Ile Arg
 485 490 495
 Lys Pro Leu Met Thr Arg Val Val Glu Arg Ser Ser Ser Met Thr Ser
 500 505 510
 Thr Met Thr Ile Gly Lys Phe Met Leu Ala Leu Ala Phe Phe Ala Ile
 515 520 525
 Ile Ile Ala Tyr Phe
 530

<210> 284

<211> 757

<212> PRT

<213> Homo sapiens

<400> 284

Met Val Pro Asp Thr Ala Cys Val Leu Leu Leu Thr Leu Ala Ala Leu
 1 5 10 15
 Gly Ala Ser Gly Gln Gly Gln Ser Pro Leu Gly Ser Asp Leu Gly Pro

- 340 -

Phe Asn Gly Val Asp Phe Glu Gly Thr Phe His Val Asn Thr Val Thr
 580 585 590
 Asp Asp Asp Tyr Ala Gly Phe Ile Phe Gly Tyr Gln Asp Ser Ser Ser
 595 600 605
 Phe Tyr Val Val Met Trp Lys Gln Met Glu Gln Thr Tyr Trp Gln Ala
 610 615 620
 Asn Pro Phe Arg Ala Val Ala Glu Pro Gly Ile Gln Leu Lys Ala Val
 625 630 635 640
 Lys Ser Ser Thr Gly Pro Gly Glu Gln Leu Arg Asn Ala Leu Trp His
 645 650 655
 Thr Gly Asp Thr Glu Ser Gln Val Arg Leu Leu Trp Lys Asp Pro Arg
 660 665 670
 Asn Val Gly Trp Lys Asp Lys Lys Ser Tyr Arg Trp Phe Leu Gln His
 675 680 685
 Arg Pro Gln Val Gly Tyr Ile Arg Val Arg Phe Tyr Glu Gly Pro Glu
 690 695 700
 Leu Val Ala Asp Ser Asn Val Val Leu Asp Thr Thr Met Arg Gly Gly
 705 710 715 720
 Arg Leu Gly Val Phe Cys Phe Ser Gln Glu Asn Ile Ile Trp Ala Asn
 725 730 735
 Leu Arg Tyr Arg Cys Asn Asp Thr Ile Pro Glu Asp Tyr Glu Thr His
 740 745 750
 Gln Leu Arg Gln Ala
 755

<210> 285

<211> 3396

<212> PRT

<213> Homo sapiens

<400> 285

Met Phe Ile Asn Ile Lys Ser Ile Leu Trp Met Cys Ser Thr Leu Ile
 1 5 10 15
 Val Thr His Ala Leu His Lys Val Lys Val Gly Lys Ser Pro Pro Val
 20 25 30
 Arg Gly Ser Leu Ser Gly Lys Val Ser Leu Pro Cys His Phe Ser Thr
 35 40 45
 Met Pro Thr Leu Pro Pro Ser Tyr Asn Thr Ser Glu Phe Leu Arg Ile
 50 55 60
 Lys Trp Ser Lys Ile Glu Val Asp Lys Asn Gly Lys Asp Leu Lys Glu
 65 70 75 80
 Thr Thr Val Leu Val Ala Gln Asn Gly Asn Ile Lys Ile Gly Gln Asp
 85 90 95
 Tyr Lys Gly Arg Val Ser Val Pro Thr His Pro Glu Ala Val Gly Asp
 100 105 110
 Ala Ser Leu Thr Val Val Lys Leu Ala Ser Asp Ala Gly Leu Tyr
 115 120 125
 Arg Cys Asp Val Met Tyr Gly Ile Glu Asp Thr Gln Asp Thr Val Ser
 130 135 140
 Leu Thr Val Asp Gly Val Val Phe His Tyr Arg Ala Ala Thr Ser Arg
 145 150 155 160
 Tyr Thr Leu Asn Phe Glu Ala Ala Gln Lys Ala Cys Leu Asp Val Gly
 165 170 175
 Ala Val Ile Ala Thr Pro Glu Gln Leu Phe Ala Ala Tyr Glu Asp Gly
 180 185 190
 Phe Glu Gln Cys Asp Ala Gly Trp Leu Ala Asp Gln Thr Val Arg Tyr
 195 200 205
 Pro Ile Arg Ala Pro Arg Val Gly Cys Tyr Gly Asp Lys Met Gly Lys
 210 215 220
 Ala Gly Val Arg Thr Tyr Gly Phe Arg Ser Pro Gln Glu Thr Tyr Asp
 225 230 235 240
 Val Tyr Cys Tyr Val Asp His Leu Asp Gly Asp Val Phe His Leu Thr
 245 250 255
 Val Pro Ser Lys Phe Thr Phe Glu Glu Ala Lys Glu Cys Glu Asn
 260 265 270
 Gln Asp Ala Arg Leu Ala Thr Val Gly Glu Leu Gln Ala Ala Trp Arg
 275 280 285
 Asn Gly Phe Asp Gln Cys Asp Tyr Gly Trp Leu Ser Asp Ala Ser Val
 290 295 300
 Arg His Pro Val Thr Val Ala Arg Ala Gln Cys Gly Gly Gly Leu Leu

305					310					315				320
Gly	Val	Arg	Thr	Leu	Tyr	Arg	Phe	Glu	Asn	Gln	Thr	Gly	Phe	Pro
				325					330					335
Pro	Asp	Ser	Arg	Phe	Asp	Ala	Tyr	Cys	Phe	Lys	Pro	Lys	Glu	Ala
			340					345					350	
Thr	Ile	Asp	Leu	Ser	Ile	Leu	Ala	Glu	Thr	Ala	Ser	Pro	Ser	Leu
		355					360					365		
Lys	Glu	Pro	Gln	Met	Val	Ser	Asp	Arg	Thr	Thr	Pro	Ile	Ile	Pro
	370					375					380			Leu
Val	Asp	Glu	Leu	Pro	Val	Ile	Pro	Thr	Glu	Phe	Pro	Pro	Val	Gly
385					390					395				400
Ile	Val	Ser	Phe	Glu	Gln	Lys	Ala	Thr	Val	Gln	Pro	Gln	Ala	Ile
				405					410					415
Asp	Ser	Leu	Ala	Thr	Lys	Leu	Pro	Thr	Pro	Thr	Gly	Ser	Thr	Lys
			420					425					430	
Pro	Trp	Asp	Met	Asp	Asp	Tyr	Ser	Pro	Ser	Ala	Ser	Gly	Pro	Leu
		435					440					445		Gly
Lys	Leu	Asp	Ile	Ser	Glu	Ile	Lys	Glu	Glu	Val	Leu	Gln	Ser	Thr
	450					455					460			Thr
Gly	Val	Ser	His	Tyr	Ala	Thr	Asp	Ser	Trp	Asp	Gly	Val	Val	Glu
465					470					475				480
Lys	Gln	Thr	Gln	Glu	Ser	Val	Thr	Gln	Ile	Glu	Gln	Ile	Glu	Val
				485				490						495
Pro	Leu	Val	Thr	Ser	Met	Glu	Ile	Leu	Lys	His	Ile	Pro	Ser	Lys
		500						505					510	Glu
Phe	Pro	Val	Thr	Glu	Thr	Pro	Leu	Val	Thr	Ala	Arg	Met	Ile	Leu
		515					520					525		
Ser	Lys	Thr	Glu	Lys	Lys	Met	Val	Ser	Thr	Val	Ser	Glu	Leu	Val
	530					535					540			Thr
Thr	Gly	His	Tyr	Gly	Phe	Thr	Leu	Gly	Glu	Glu	Asp	Asp	Glu	Asp
545					550					555				560
Thr	Leu	Thr	Val	Gly	Ser	Asp	Glu	Ser	Thr	Leu	Ile	Phe	Asp	Gln
				565					570					575
Pro	Glu	Val	Ile	Thr	Val	Ser	Lys	Thr	Ser	Glu	Asp	Thr	Ile	His
		580						585					590	Thr
His	Leu	Glu	Asp	Leu	Glu	Ser	Val	Ser	Ala	Ser	Thr	Thr	Val	Ser
	595						600					605		Pro
Leu	Ile	Met	Pro	Asp	Asn	Asn	Gly	Ser	Ser	Met	Asp	Asp	Trp	Glu
	610					615					620			Glu
Arg	Gln	Thr	Ser	Gly	Arg	Ile	Thr	Glu	Glu	Phe	Leu	Gly	Lys	Tyr
625					630					635				640
Ser	Thr	Thr	Pro	Phe	Pro	Ser	Gln	His	Arg	Thr	Glu	Ile	Glu	Leu
				645					650					655
Pro	Tyr	Ser	Gly	Asp	Lys	Ile	Leu	Val	Glu	Gly	Ile	Ser	Thr	Val
			660					665					670	Ile
Tyr	Pro	Ser	Leu	Gln	Thr	Glu	Met	Thr	His	Arg	Arg	Glu	Arg	Thr
		675					680					685		Glu
Thr	Leu	Ile	Pro	Glu	Met	Arg	Thr	Asp	Thr	Tyr	Thr	Asp	Glu	Ile
	690					695						700		Gln
Glu	Glu	Ile	Thr	Lys	Ser	Pro	Phe	Met	Gly	Lys	Thr	Glu	Glu	Glu
705						710				715				720
Phe	Ser	Gly	Met	Lys	Leu	Ser	Thr	Ser	Leu	Ser	Glu	Pro	Ile	His
				725					730					735
Thr	Glu	Ser	Ser	Val	Glu	Met	Thr	Lys	Ser	Phe	Asp	Phe	Pro	Thr
			740					745					750	Leu
Ile	Thr	Lys	Leu	Ser	Ala	Glu	Pro	Thr	Glu	Val	Arg	Asp	Met	Glu
		755					760					765		Glu
Asp	Phe	Thr	Ala	Thr	Pro	Gly	Thr	Thr	Lys	Tyr	Asp	Glu	Asn	Ile
	770					775					780			Thr
Thr	Val	Leu	Leu	Ala	His	Gly	Thr	Leu	Ser	Val	Glu	Ala	Ala	Thr
785					790					795				800
Ser	Lys	Trp	Ser	Trp	Asp	Glu	Asp	Asn	Thr	Thr	Ser	Lys	Pro	Leu
				805				810						815
Ser	Thr	Glu	Pro	Ser	Ala	Ser	Ser	Lys	Leu	Pro	Pro	Ala	Leu	Leu
			820					825				830		Thr
Thr	Val	Gly	Met	Asn	Gly	Lys	Asp	Lys	Asp	Ile	Pro	Ser	Phe	Thr
		835					840					845		Glu
Asp	Gly	Ala	Asp	Glu	Phe	Thr	Leu	Ile	Pro	Asp	Ser	Thr	Gln	Lys
	850					855					860			Gln

Leu Glu Glu Val Thr Asp Glu Asp Ile Ala Ala His Gly Lys Phe Thr
 865 870 875 880
 Ile Arg Phe Gln Pro Thr Thr Ser Thr Gly Ile Ala Glu Lys Ser Thr
 885 890 895
 Leu Arg Asp Ser Thr Thr Glu Glu Lys Val Pro Pro Ile Thr Ser Thr
 900 905 910
 Glu Gly Gln Val Tyr Ala Thr Met Glu Gly Ser Ala Leu Gly Glu Val
 915 920 925
 Glu Asp Val Asp Leu Ser Lys Pro Val Ser Thr Val Pro Gln Phe Ala
 930 935 940
 His Thr Ser Glu Val Glu Gly Leu Ala Phe Val Ser Tyr Ser Ser Thr
 945 950 955 960
 Gln Glu Pro Thr Thr Tyr Val Asp Ser Ser His Thr Ile Pro Leu Ser
 965 970 975
 Val Ile Pro Lys Thr Asp Trp Gly Val Leu Val Pro Ser Val Pro Ser
 980 985 990
 Glu Asp Glu Val Leu Gly Glu Pro Ser Gln Asp Ile Leu Val Ile Asp
 995 1000 1005
 Gln Thr Arg Leu Glu Ala Thr Ile Ser Pro Glu Thr Met Arg Thr
 1010 1015 1020
 Thr Lys Ile Thr Glu Gly Thr Thr Gln Glu Glu Phe Pro Trp Lys
 1025 1030 1035
 Glu Gln Thr Ala Glu Lys Pro Val Pro Ala Leu Ser Ser Thr Ala
 1040 1045 1050
 Trp Thr Pro Lys Glu Ala Val Thr Pro Leu Asp Glu Gln Glu Gly
 1055 1060 1065
 Asp Gly Ser Ala Tyr Thr Val Ser Glu Asp Glu Leu Leu Thr Gly
 1070 1075 1080
 Ser Glu Arg Val Pro Val Leu Glu Thr Thr Pro Val Gly Lys Ile
 1085 1090 1095
 Asp His Ser Val Ser Tyr Pro Pro Gly Ala Val Thr Glu His Lys
 1100 1105 1110
 Val Lys Thr Asp Glu Val Val Thr Leu Thr Pro Arg Ile Gly Pro
 1115 1120 1125
 Lys Val Ser Leu Ser Pro Gly Pro Glu Gln Lys Tyr Glu Thr Glu
 1130 1135 1140
 Gly Ser Ser Thr Thr Gly Phe Thr Ser Ser Leu Ser Pro Phe Ser
 1145 1150 1155
 Thr His Ile Thr Gln Leu Met Glu Glu Thr Thr Thr Glu Lys Thr
 1160 1165 1170
 Ser Leu Glu Asp Ile Asp Leu Gly Ser Gly Leu Phe Glu Lys Pro
 1175 1180 1185
 Lys Ala Thr Glu Leu Ile Glu Phe Ser Thr Ile Lys Val Thr Val
 1190 1195 1200
 Pro Ser Asp Ile Thr Thr Ala Phe Ser Ser Val Asp Arg Leu His
 1205 1210 1215
 Thr Thr Ser Ala Phe Lys Pro Ser Ser Ala Ile Thr Lys Lys Pro
 1220 1225 1230
 Pro Leu Ile Asp Arg Glu Pro Gly Glu Glu Thr Thr Ser Asp Met
 1235 1240 1245
 Val Ile Ile Gly Glu Ser Thr Ser His Val Pro Pro Thr Thr Leu
 1250 1255 1260
 Glu Asp Ile Val Ala Lys Glu Thr Glu Thr Asp Ile Asp Arg Glu
 1265 1270 1275
 Tyr Phe Thr Thr Ser Ser Pro Pro Ala Thr Gln Pro Thr Arg Pro
 1280 1285 1290
 Pro Thr Val Glu Asp Lys Glu Ala Phe Gly Pro Gln Ala Leu Ser
 1295 1300 1305
 Thr Pro Gln Pro Pro Ala Ser Thr Lys Phe His Pro Asp Ile Asn
 1310 1315 1320
 Val Tyr Ile Ile Glu Val Arg Glu Asn Lys Thr Gly Arg Met Ser
 1325 1330 1335
 Asp Leu Ser Val Ile Gly His Pro Ile Asp Ser Glu Ser Lys Glu
 1340 1345 1350
 Asp Glu Pro Cys Ser Glu Glu Thr Asp Pro Val His Asp Leu Met
 1355 1360 1365
 Ala Glu Ile Leu Pro Glu Phe Pro Asp Ile Ile Glu Ile Asp Leu
 1370 1375 1380
 Tyr His Ser Glu Glu Asn Glu Glu Glu Glu Glu Cys Ala Asn

1385	Ala Thr Asp Val Thr Thr Thr	1390	Pro Ser Val Gln Tyr	1395	Ile Asn Gly
1400	Lys His Leu Val Thr Thr Thr	1405	Pro Lys Asp Pro Glu	1410	Ala Ala Glu
1415	Ala Arg Arg Gly Gln Phe Glu	1420	Ser Val Ala Pro Ser	1425	Gln Asn Phe
1430	Ser Asp Ser Ser Glu Ser Asp	1435	Thr His Pro Phe Val	1440	Ile Ala Lys
1445	Thr Glu Leu Ser Thr Ala Val	1450	Gln Pro Asn Glu Ser	1455	Thr Glu Thr
1460	Thr Glu Ser Leu Glu Val Thr	1465	Trp Lys Pro Glu Thr	1470	Tyr Pro Glu
1475	Thr Ser Glu His Phe Ser Gly	1480	Gly Glu Pro Asp Val	1485	Phe Pro Thr
1490	Val Pro Phe His Glu Glu Phe	1495	Glu Ser Gly Thr Ala	1500	Lys Lys Gly
1505	Ala Glu Ser Val Thr Glu Arg	1510	Asp Thr Glu Val Gly	1515	His Gln Ala
1520	His Glu His Thr Glu Pro Val	1525	Ser Leu Phe Pro Glu	1530	Glu Ser Ser
1535	Gly Glu Ile Ala Ile Asp Gln	1540	Glu Ser Gln Lys Ile	1545	Ala Phe Ala
1550	Arg Ala Thr Glu Val Thr Phe	1555	Gly Glu Glu Val Glu	1560	Lys Ser Thr
1565	Ser Val Thr Tyr Thr Pro Thr	1570	Ile Val Pro Ser Ser	1575	Ala Ser Ala
1580	Tyr Val Ser Glu Glu Glu Ala	1585	Val Thr Leu Ile Gly	1590	Asn Pro Trp
1595	Pro Asp Asp Leu Leu Ser Thr	1600	Lys Glu Ser Trp Val	1605	Glu Ala Thr
1610	Pro Arg Gln Val Val Glu Leu	1615	Ser Gly Ser Ser Ser	1620	Ile Pro Ile
1625	Thr Glu Gly Ser Gly Glu Ala	1630	Glu Glu Asp Glu Asp	1635	Thr Met Phe
1640	Thr Met Val Thr Asp Leu Ser	1645	Gln Arg Asn Thr Thr	1650	Asp Thr Leu
1655	Ile Thr Leu Asp Thr Ser Arg	1660	Ile Ile Thr Glu Ser	1665	Phe Phe Glu
1670	Val Pro Ala Thr Thr Ile Tyr	1675	Pro Val Ser Glu Gln	1680	Pro Ser Ala
1685	Lys Val Val Pro Thr Lys Phe	1690	Val Ser Glu Thr Asp	1695	Thr Ser Glu
1700	Trp Ile Ser Ser Thr Thr Val	1705	Glu Glu Lys Lys Arg	1710	Lys Glu Glu
1715	Glu Gly Thr Thr Gly Thr Ala	1720	Ser Thr Phe Glu Val	1725	Tyr Ser Ser
1730	Thr Gln Arg Ser Asp Gln Leu	1735	Ile Leu Pro Phe Glu	1740	Leu Glu Ser
1745	Pro Asn Val Ala Thr Ser Ser	1750	Asp Ser Gly Thr Arg	1755	Lys Ser Phe
1760	Met Ser Leu Thr Thr Pro Thr	1765	Gln Ser Glu Arg Glu	1770	Met Thr Asp
1775	Ser Thr Pro Val Phe Thr Glu	1780	Thr Asn Thr Leu Glu	1785	Asn Leu Gly
1790	Ala Gln Thr Thr Glu His Ser	1795	Ser Ile His Gln Pro	1800	Gly Val Gln
1805	Glu Gly Leu Thr Thr Leu Pro	1810	Arg Ser Pro Ala Ser	1815	Val Phe Met
1820	Glu Gln Gly Ser Gly Glu Ala	1825	Ala Ala Asp Pro Glu	1830	Thr Thr Thr
1835	Val Ser Ser Phe Ser Leu Asn	1840	Val Glu Tyr Ala Ile	1845	Gln Ala Glu
1850	Lys Glu Val Ala Gly Thr Leu	1855	Ser Pro His Val Glu	1860	Thr Thr Phe
1865	Ser Thr Glu Pro Thr Gly Leu	1870	Val Leu Ser Thr Val	1875	Met Asp Arg
1880	Val Val Ala Glu Asn Ile Thr	1885	Gln Thr Ser Arg Glu	1890	Ile Val Ile
1895		1900		1905	

Ser	Glu	Arg	Leu	Gly	Glu	Pro	Asn	Tyr	Gly	Ala	Glu	Ile	Arg	Gly
1910						1915					1920			
Phe	Ser	Thr	Gly	Phe	Pro	Leu	Glu	Glu	Asp	Phe	Ser	Gly	Asp	Phe
1925						1930					1935			
Arg	Glu	Tyr	Ser	Thr	Val	Ser	His	Pro	Ile	Ala	Lys	Glu	Glu	Thr
1940						1945					1950			
Val	Met	Met	Glu	Gly	Ser	Gly	Asp	Ala	Ala	Phe	Arg	Asp	Thr	Gln
1955						1960					1965			
Thr	Ser	Pro	Ser	Thr	Val	Pro	Thr	Ser	Val	His	Ile	Ser	His	Ile
1970						1975					1980			
Ser	Asp	Ser	Glu	Gly	Pro	Ser	Ser	Thr	Met	Val	Ser	Thr	Ser	Ala
1985						1990					1995			
Phe	Pro	Trp	Glu	Glu	Phe	Thr	Ser	Ser	Ala	Glu	Gly	Ser	Gly	Glu
2000						2005					2010			
Gln	Leu	Val	Thr	Val	Ser	Ser	Ser	Val	Val	Pro	Val	Leu	Pro	Ser
2015						2020					2025			
Ala	Val	Gln	Lys	Phe	Ser	Gly	Thr	Ala	Ser	Ser	Ile	Ile	Asp	Glu
2030						2035					2040			
Gly	Leu	Gly	Glu	Val	Gly	Thr	Val	Asn	Glu	Ile	Asp	Arg	Arg	Ser
2045						2050					2055			
Thr	Ile	Leu	Pro	Thr	Ala	Glu	Val	Glu	Gly	Thr	Lys	Ala	Pro	Val
2060						2065					2070			
Glu	Lys	Glu	Glu	Val	Lys	Val	Ser	Gly	Thr	Val	Ser	Thr	Asn	Phe
2075						2080					2085			
Pro	Gln	Thr	Ile	Glu	Pro	Ala	Lys	Leu	Trp	Ser	Arg	Gln	Glu	Val
2090						2095					2100			
Asn	Pro	Val	Arg	Gln	Glu	Ile	Glu	Ser	Glu	Thr	Thr	Ser	Glu	Glu
2105						2110					2115			
Gln	Ile	Gln	Glu	Glu	Lys	Ser	Phe	Glu	Ser	Pro	Gln	Asn	Ser	Pro
2120						2125					2130			
Ala	Thr	Glu	Gln	Thr	Ile	Phe	Asp	Ser	Gln	Thr	Phe	Thr	Glu	Thr
2135						2140					2145			
Glu	Leu	Lys	Thr	Thr	Asp	Tyr	Ser	Val	Leu	Thr	Thr	Lys	Lys	Thr
2150						2155					2160			
Tyr	Ser	Asp	Asp	Lys	Glu	Met	Lys	Glu	Glu	Asp	Thr	Ser	Leu	Val
2165						2170					2175			
Asn	Met	Ser	Thr	Pro	Asp	Pro	Asp	Ala	Asn	Gly	Leu	Glu	Ser	Tyr
2180						2185					2190			
Thr	Thr	Leu	Pro	Glu	Ala	Thr	Glu	Lys	Ser	His	Phe	Phe	Leu	Ala
2195						2200					2205			
Thr	Ala	Leu	Val	Thr	Glu	Ser	Ile	Pro	Ala	Glu	His	Val	Val	Thr
2210						2215					2220			
Asp	Ser	Pro	Ile	Lys	Lys	Glu	Glu	Ser	Thr	Lys	His	Phe	Pro	Lys
2225						2230					2235			
Gly	Met	Arg	Pro	Thr	Ile	Gln	Glu	Ser	Asp	Thr	Glu	Leu	Leu	Phe
2240						2245					2250			
Ser	Gly	Leu	Gly	Ser	Gly	Glu	Glu	Val	Leu	Pro	Thr	Leu	Pro	Thr
2255						2260					2265			
Glu	Ser	Val	Asn	Phe	Thr	Glu	Val	Glu	Gln	Ile	Asn	Asn	Thr	Leu
2270						2275					2280			
Tyr	Pro	His	Thr	Ser	Gln	Val	Glu	Ser	Thr	Ser	Ser	Asp	Lys	Ile
2285						2290					2295			
Glu	Asp	Phe	Asn	Arg	Met	Glu	Asn	Val	Ala	Lys	Glu	Val	Gly	Pro
2300						2305					2310			
Leu	Val	Ser	Gln	Thr	Asp	Ile	Phe	Glu	Gly	Ser	Gly	Ser	Val	Thr
2315						2320					2325			
Ser	Thr	Thr	Leu	Ile	Glu	Ile	Leu	Ser	Asp	Thr	Gly	Ala	Glu	Gly
2330						2335					2340			
Pro	Thr	Val	Ala	Pro	Leu	Pro	Phe	Ser	Thr	Asp	Ile	Gly	His	Pro
2345						2350					2355			
Gln	Asn	Gln	Thr	Val	Arg	Trp	Ala	Glu	Glu	Ile	Gln	Thr	Ser	Arg
2360						2365					2370			
Pro	Gln	Thr	Ile	Thr	Glu	Gln	Asp	Ser	Asn	Lys	Asn	Ser	Ser	Thr
2375						2380					2385			
Ala	Glu	Ile	Asn	Glu	Thr	Thr	Thr	Ser	Ser	Thr	Asp	Phe	Leu	Ala
2390						2395					2400			
Arg	Ala	Tyr	Gly	Phe	Glu	Met	Ala	Lys	Glu	Phe	Val	Thr	Ser	Ala
2405						2410					2415			
Pro	Lys	Pro	Ser	Asp	Leu	Tyr	Tyr	Glu	Pro	Ser	Gly	Glu	Gly	Ser

2420	Gly Glu Val Asp Ile Val	2425	Asp Ser Phe His Thr	2430	Ser Ala Thr Thr
2435	Gln Ala Thr Arg Gln Glu	2440	Ser Thr Thr Phe	2445	Val Ser Asp Gly
2450	Ser Leu Glu Lys His Pro	2455	Glu Val Pro Ser Ala	2460	Lys Ala Val Thr
2465	Ala Asp Gly Phe Pro Thr	2470	Val Ser Val Met Leu	2475	Pro Leu His Ser
2480	Glu Gln Asn Lys Ser Ser	2485	Pro Asp Pro Thr Ser	2490	Thr Leu Ser Asn
2495	Thr Val Ser Tyr Glu Arg	2500	Ser Thr Asp Gly Ser	2505	Phe Gln Asp Arg
2510	Phe Arg Glu Phe Glu Asp	2515	Ser Thr Leu Lys Pro	2520	Asn Arg Lys Lys
2525	Pro Thr Glu Asn Ile Ile	2530	Ile Asp Leu Asp Lys	2535	Glu Asp Lys Asp
2540	Leu Ile Leu Thr Ile Thr	2545	Glu Ser Thr Ile Leu	2550	Glu Ile Leu Pro
2555	Glu Leu Thr Ser Asp Lys	2560	Asn Thr Ile Ile Asp	2565	Ile Asp His Thr
2570	Lys Pro Val Tyr Glu Asp	2575	Ile Leu Gly Met Gln	2580	Thr Asp Ile Asp
2585	Thr Glu Val Pro Ser Glu	2590	Pro His Asp Ser Asn	2595	Asp Glu Ser Asn
2600	Asp Asp Ser Thr Gln Val	2605	Gln Glu Ile Tyr Glu	2610	Ala Ala Val Asn
2615	Leu Ser Leu Thr Glu Glu	2620	Thr Phe Glu Gly Ser	2625	Ala Asp Val Leu
2630	Ala Ser Tyr Thr Gln Ala	2635	Thr His Asp Glu Ser	2640	Met Thr Tyr Glu
2645	Asp Arg Ser Gln Leu Asp	2650	His Met Gly Phe His	2655	Thr Thr Gly
2660	Ile Pro Ala Pro Ser Thr	2665	Glu Thr Glu Leu Asp	2670	Val Leu Leu Pro
2675	Thr Ala Thr Ser Leu Pro	2680	Ile Pro Arg Lys Ser	2685	Ala Thr Val Ile
2690	Pro Glu Ile Glu Gly Ile	2695	Lys Ala Glu Ala Lys	2700	Ala Leu Asp Asp
2705	Met Phe Glu Ser Ser Thr	2710	Leu Ser Asp Gly Gln	2715	Ala Ile Ala Asp
2720	Gln Ser Glu Ile Ile Pro	2725	Thr Leu Gly Gln Phe	2730	Glu Arg Thr Gln
2735	Glu Glu Tyr Glu Asp Lys	2740	Lys His Ala Gly Pro	2745	Ser Phe Gln Pro
2750	Glu Phe Ser Ser Gly Ala	2755	Glu Glu Ala Leu Val	2760	Asp His Thr Pro
2765	Tyr Leu Ser Ile Ala Thr	2770	Thr His Leu Met Asp	2775	Gln Ser Val Thr
2780	Glu Val Pro Asp Val Met	2785	Gly Ser Asn Pro	2790	Pro Tyr Tyr Thr
2795	Asp Thr Thr Leu Ala Val	2800	Ser Thr Phe Ala Lys	2805	Leu Ser Ser Gln
2810	Thr Pro Ser Ser Pro Leu	2815	Thr Ile Tyr Ser Gly	2820	Ser Glu Ala Ser
2825	Gly His Thr Glu Ile Pro	2830	Gln Pro Ser Ala Leu	2835	Pro Gly Ile Asp
2840	Val Gly Ser Ser Val Met	2845	Ser Pro Gln Asp Ser	2850	Phe Lys Glu Ile
2855	His Val Asn Ile Glu Ala	2860	Thr Phe Lys Pro Ser	2865	Ser Glu Glu Tyr
2870	Leu His Ile Thr Glu Pro	2875	Pro Ser Leu Ser Pro	2880	Asp Thr Lys Leu
2885	Glu Pro Ser Glu Asp Asp	2890	Gly Lys Pro Glu Leu	2895	Leu Glu Glu Met
2900	Glu Ala Ser Pro Thr Glu	2905	Leu Ile Ala Val Glu	2910	Gly Thr Glu Ile
2915	Leu Gln Asp Phe Gln Asn	2920	Lys Thr Asp Gly Gln	2925	Val Ser Gly Glu
2930		2935		2940	

Ala	Ile	Lys	Met	Phe	Pro	Thr	Ile	Lys	Thr	Pro	Glu	Ala	Gly	Thr
2945						2950					2955			
Val	Ile	Thr	Thr	Ala	Asp	Glu	Ile	Glu	Leu	Glu	Gly	Ala	Thr	Gln
2960						2965					2970			
Trp	Pro	His	Ser	Thr	Ser	Ala	Ser	Ala	Thr	Tyr	Gly	Val	Glu	Ala
2975						2980					2985			
Gly	Val	Val	Pro	Trp	Leu	Ser	Pro	Gln	Thr	Ser	Glu	Arg	Pro	Thr
2990						2995					3000			
Leu	Ser	Ser	Ser	Pro	Glu	Ile	Asn	Pro	Glu	Thr	Gln	Ala	Ala	Leu
3005						3010					3015			
Ile	Arg	Gly	Gln	Asp	Ser	Thr	Ile	Ala	Ala	Ser	Glu	Gln	Gln	Val
3020						3025					3030			
Ala	Ala	Arg	Ile	Leu	Asp	Ser	Asn	Asp	Gln	Ala	Thr	Val	Asn	Pro
3035						3040					3045			
Val	Glu	Phe	Asn	Thr	Glu	Val	Ala	Thr	Pro	Pro	Phe	Ser	Leu	Leu
3050						3055					3060			
Glu	Thr	Ser	Asn	Glu	Thr	Asp	Phe	Leu	Ile	Gly	Ile	Asn	Glu	Glu
3065						3070					3075			
Ser	Val	Glu	Gly	Thr	Ala	Ile	Tyr	Leu	Pro	Gly	Pro	Asp	Arg	Cys
3080						3085					3090			
Lys	Met	Asn	Pro	Cys	Leu	Asn	Gly	Gly	Thr	Cys	Tyr	Pro	Thr	Glu
3095						3100					3105			
Thr	Ser	Tyr	Val	Cys	Thr	Cys	Val	Pro	Gly	Tyr	Ser	Gly	Asp	Gln
3110						3115					3120			
Cys	Glu	Leu	Asp	Phe	Asp	Glu	Cys	His	Ser	Asn	Pro	Cys	Arg	Asn
3125						3130					3135			
Gly	Ala	Thr	Cys	Val	Asp	Gly	Phe	Asn	Thr	Phe	Arg	Cys	Leu	Cys
3140						3145					3150			
Leu	Pro	Ser	Tyr	Val	Gly	Ala	Leu	Cys	Glu	Gln	Asp	Thr	Glu	Thr
3155						3160					3165			
Cys	Asp	Tyr	Gly	Trp	His	Lys	Phe	Gln	Gly	Gln	Cys	Tyr	Lys	Tyr
3170						3175					3180			
Phe	Ala	His	Arg	Arg	Thr	Trp	Asp	Ala	Ala	Glu	Arg	Glu	Cys	Arg
3185						3190					3195			
Leu	Gln	Gly	Ala	His	Leu	Thr	Ser	Ile	Leu	Ser	His	Glu	Glu	Gln
3200						3205					3210			
Met	Phe	Val	Asn	Arg	Val	Gly	His	Asp	Tyr	Gln	Trp	Ile	Gly	Leu
3215						3220					3225			
Asn	Asp	Lys	Met	Phe	Glu	His	Asp	Phe	Arg	Trp	Thr	Asp	Gly	Ser
3230						3235					3240			
Thr	Leu	Gln	Tyr	Glu	Asn	Trp	Arg	Pro	Asn	Gln	Pro	Asp	Ser	Phe
3245						3250					3255			
Phe	Ser	Ala	Gly	Glu	Asp	Cys	Val	Val	Ile	Ile	Trp	His	Glu	Asn
3260						3265					3270			
Gly	Gln	Trp	Asn	Asp	Val	Pro	Cys	Asn	Tyr	His	Leu	Thr	Tyr	Thr
3275						3280					3285			
Cys	Lys	Lys	Gly	Thr	Val	Ala	Cys	Gly	Gln	Pro	Pro	Val	Val	Glu
3290						3295					3300			
Asn	Ala	Lys	Thr	Phe	Gly	Lys	Met	Lys	Pro	Arg	Tyr	Glu	Ile	Asn
3305						3310					3315			
Ser	Leu	Ile	Arg	Tyr	His	Cys	Lys	Asp	Gly	Phe	Ile	Gln	Arg	His
3320						3325					3330			
Leu	Pro	Thr	Ile	Arg	Cys	Leu	Gly	Asn	Gly	Arg	Trp	Ala	Ile	Pro
3335						3340					3345			
Lys	Ile	Thr	Cys	Met	Asn	Pro	Ser	Ala	Tyr	Gln	Arg	Thr	Tyr	Ser
3350						3355					3360			
Met	Lys	Tyr	Phe	Lys	Asn	Ser	Ser	Ser	Ala	Lys	Asp	Asn	Ser	Ile
3365						3370					3375			
Asn	Thr	Ser	Lys	His	Asp	His	Arg	Trp	Ser	Arg	Arg	Trp	Gln	Glu
3380						3385					3390			
Ser	Arg	Arg												
3395														

<210> 286

<211> 148

<212> PRT

<213> Homo sapiens

<400> 286

Met Met His Leu Leu Asn Ser Gln Gly Trp Asn Glu Pro Ala Gly Pro

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1           5           10           15
Pro Glu Ser Trp Ser Gly Val Gln Ser Ser Val Phe Leu Ser Val Tyr
                20           25           30
Ser Ser Leu Thr Val Pro Arg Pro Ser Gly Val Gly Ala Gly Ser Gln
                35           40           45
Cys Trp Arg Arg Asn Asn Lys Ser Gln Leu Glu Pro Leu Phe Leu Lys
                50           55           60
Ser Ala Tyr Cys Ala Gln Ile Leu Phe Lys His Trp Thr Trp Ile Leu
65                70           75           80
Ser Leu Ala Leu Ser Thr Pro Ala Val Gly Val Pro Pro Leu Pro Thr
                85           90           95
Cys Asp Gly Val Gln Arg His Leu Leu Phe Cys Met Val Phe Asn Arg
                100           105           110
Leu Gly Val Leu Phe Ile Ser Ser Asn Phe Val Gln Glu Leu Met Ala
                115           120           125
Cys Leu Gly Leu Ser Ser Leu Asn Gln Arg Lys Trp Lys Pro Phe Pro
                130           135           140
Cys Cys Ser Pro
145

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<210> 287
<211> 449
<212> PRT
<213> Homo sapiens
<400> 287

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Met Leu Trp Lys Leu Val Glu Asn Val Lys Tyr Glu Asp Ile Tyr Glu
1           5           10           15
Asp Arg His Asp Gly Val Pro Ser His Ser Ser Arg Leu Ser Gln Leu
                20           25           30
Gly Ser Val Ser Gln Gly Pro Tyr Ser Ser Ala Pro Pro Leu Ser His
                35           40           45
Thr Pro Ser Ser Asp Phe Gln Pro Pro Tyr Phe Pro Pro Pro Tyr Gln
50                55           60
Pro Leu Pro Tyr His Gln Ser Gln Asp Pro Tyr Ser His Val Asn Asp
65                70           75           80
Pro Tyr Ser Leu Asn Pro Leu His Gln Pro Gln Gln His Pro Trp Gly
                85           90           95
Gln Arg Gln Arg Gln Glu Val Gly Ser Glu Ala Gly Ser Leu Leu Pro
                100           105           110
Gln Pro Arg Ala Ala Leu Pro Gln Leu Ser Gly Leu Asp Pro Arg Arg
                115           120           125
Asp Tyr His Ser Val Arg Arg Pro Asp Val Leu Leu His Ser Ala His
130                135           140
His Gly Leu Asp Ala Gly Met Gly Asp Ser Leu Ser Leu His Gly Leu
145                150           155           160
Gly His Pro Gly Met Glu Asp Val Gln Ser Val Glu Asp Ala Asn Asn
                165           170           175
Ser Gly Met Asn Leu Leu Asp Gln Ser Val Ile Lys Lys Val Pro Val
                180           185           190
Pro Pro Lys Ser Val Thr Ser Leu Met Met Asn Lys Asp Gly Phe Leu
                195           200           205
Gly Gly Met Ser Val Asn Thr Gly Glu Val Phe Cys Ser Val Pro Gly
210                215           220
Arg Leu Ser Leu Leu Ser Ser Thr Ser Lys Tyr Lys Val Thr Val Gly
225                230           235           240
Glu Val Gln Arg Arg Leu Ser Pro Pro Glu Cys Leu Asn Ala Ser Leu
                245           250           255
Leu Gly Gly Val Leu Arg Arg Ala Lys Ser Lys Asn Gly Gly Arg Ser
                260           265           270
Leu Arg Glu Arg Leu Glu Lys Ile Gly Leu Asn Leu Pro Ala Gly Arg
275                280           285
Arg Lys Ala Ala Asn Val Thr Leu Leu Thr Ser Leu Val Glu Gly Glu
290                295           300
Ala Val His Leu Ala Arg Asp Phe Gly Tyr Ile Cys Glu Thr Glu Phe
305                310           315           320
Pro Ala Lys Ala Val Ser Glu Tyr Leu Asn Arg Gln His Thr Asp Pro
                325           330           335
Ser Asp Leu His Ser Arg Lys Asn Met Leu Leu Ala Thr Lys Gln Leu
                340           345           350

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Cys Lys Glu Phe Thr Asp Leu Leu Ala Gln Asp Arg Thr Pro Ile Gly
 355 360 365
 Asn Ser Arg Pro Ser Pro Ile Leu Glu Pro Gly Ile Gln Ser Cys Leu
 370 375 380
 Thr His Phe Ser Leu Ile Thr His Gly Phe Gly Ala Pro Ala Ile Cys
 385 390 395 400
 Ala Ala Leu Thr Ala Leu Gln Asn Tyr Leu Thr Glu Ala Leu Lys Gly
 405 410 415
 Met Asp Lys Met Phe Leu Asn Asn Thr Thr Thr Asn Arg His Thr Ser
 420 425 430
 Gly Glu Gly Pro Gly Ser Lys Thr Gly Asp Lys Glu Glu Lys His Arg
 435 440 445
 Lys

<210> 288
 <211> 114
 <212> PRT
 <213> Homo sapiens
 <400> 288

Met Leu Leu Ser Val Met Ala Tyr Asp Arg Phe Val Ala Ile Cys His
 1 5 10 15
 Pro Leu Tyr His Ser Ala Ile Met Asn Pro Cys Phe Cys Gly Phe Leu
 20 25 30
 Leu Leu Leu Ser Phe Phe Phe Phe Leu Ser Leu Leu Asp Thr Gln Leu
 35 40 45
 His Asn Leu Ile Ala Leu Gln Met Thr Cys Phe Lys Asp Val Glu Ile
 50 55 60
 Pro Asn Phe Phe Cys Asp Pro Ser Gln Leu Pro His Leu Ala Cys Cys
 65 70 75 80
 Asp Thr Phe Thr Asn Asn Ile Ile Val Tyr Phe Pro Ala Val Ile Phe
 85 90 95
 Val Phe Leu Pro Ile Ser Gly Thr Leu Phe Ser Leu Lys Leu Phe Pro
 100 105 110
 Pro Phe

<210> 289
 <211> 195
 <212> PRT
 <213> Homo sapiens
 <400> 289

Met Met Ala Ile Arg Glu Leu Lys Val Cys Leu Leu Gly Asp Thr Gly
 1 5 10 15
 Val Gly Lys Ser Ser Ile Val Cys Arg Phe Val Gln Asp His Phe Asp
 20 25 30
 His Asn Ile Ser Pro Thr Ile Gly Ala Ser Phe Met Thr Lys Thr Val
 35 40 45
 Pro Cys Gly Asn Glu Leu His Lys Phe Leu Ile Trp Asp Thr Ala Gly
 50 55 60
 Gln Glu Arg Phe His Ser Leu Ala Pro Met Tyr Tyr Arg Gly Ser Ala
 65 70 75 80
 Ala Ala Val Ile Val Tyr Asp Ile Thr Lys Gln Asp Ser Phe Tyr Thr
 85 90 95
 Leu Lys Lys Trp Val Lys Glu Leu Lys Glu His Gly Pro Glu Asn Ile
 100 105 110
 Val Met Ala Ile Ala Gly Asn Lys Cys Asp Leu Ser Asp Ile Arg Glu
 115 120 125
 Val Pro Leu Lys Asp Ala Lys Glu Tyr Ala Glu Ser Ile Gly Ala Ile
 130 135 140
 Val Val Glu Thr Ser Ala Lys Asn Ala Ile Asn Ile Glu Glu Leu Phe
 145 150 155 160
 Gln Gly Ile Ser Arg Gln Ile Pro Pro Leu Asp Pro His Glu Asn Gly
 165 170 175
 Asn Asn Gly Thr Ile Lys Val Glu Lys Pro Thr Met Gln Ala Ser Arg
 180 185 190
 Arg Cys Cys
 195

<210> 290
 <211> 270
 <212> PRT
 <213> Homo sapiens
 <400> 290
 Met Ala Ala Ser Ser Ser Gly Glu Lys Glu Lys Glu Arg Leu Gly Gly
 1 5 10 15
 Gly Leu Gly Val Ala Gly Gly Asn Ser Thr Arg Glu Arg Leu Leu Ser
 20 25 30
 Ala Leu Glu Asp Leu Glu Val Leu Ser Arg Glu Leu Ile Glu Met Leu
 35 40 45
 Ala Ile Ser Arg Asn Gln Lys Leu Leu Gln Ala Gly Glu Glu Asn Gln
 50 55 60
 Val Leu Glu Leu Leu Ile His Arg Asp Gly Glu Phe Gln Glu Leu Met
 65 70 75 80
 Lys Leu Ala Leu Asn Gln Gly Lys Ile His Glu Met Gln Val Leu
 85 90 95
 Glu Lys Glu Val Glu Lys Arg Asp Ser Asp Ile Gln Gln Leu Gln Lys
 100 105 110
 Gln Leu Lys Glu Ala Glu Gln Ile Leu Ala Thr Ala Val Tyr Gln Ala
 115 120 125
 Lys Glu Lys Leu Lys Ser Ile Glu Lys Ala Arg Lys Gly Ala Ile Ser
 130 135 140
 Ser Glu Glu Ile Ile Lys Tyr Ala His Arg Ile Ser Ala Ser Asn Ala
 145 150 155 160
 Val Cys Ala Pro Leu Thr Trp Val Pro Gly Asp Pro Arg Arg Pro Tyr
 165 170 175
 Pro Thr Asp Leu Glu Met Arg Ser Gly Leu Leu Gly Gln Met Asn Asn
 180 185 190
 Pro Ser Thr Asn Gly Val Asn Gly His Leu Pro Gly Asp Ala Leu Ala
 195 200 205
 Ala Gly Arg Leu Pro Asp Val Leu Ala Pro Gln Tyr Pro Trp Gln Ser
 210 215 220
 Asn Asp Met Ser Met Asn Met Leu Pro Pro Asn His Ser Ser Asp Phe
 225 230 235 240
 Leu Leu Glu Pro Pro Gly His Asn Lys Glu Asn Glu Asp Asp Val Glu
 245 250 255
 Ile Met Ser Thr Asp Ser Ser Ser Ser Ser Ser Glu Ser Asp
 260 265 270

<210> 291
 <211> 228
 <212> PRT
 <213> Homo sapiens
 <400> 291
 Met Leu Ser Arg Cys Arg Ser Gly Leu Leu His Val Leu Gly Leu Ser
 1 5 10 15
 Phe Leu Leu Gln Thr Arg Arg Pro Ile Leu Leu Cys Ser Pro Arg Leu
 20 25 30
 Met Lys Pro Leu Val Val Phe Val Leu Gly Gly Pro Gly Ala Gly Lys
 35 40 45
 Gly Thr Gln Cys Ala Arg Ile Val Glu Lys Tyr Gly Tyr Thr His Leu
 50 55 60
 Ser Ala Gly Glu Leu Leu Arg Asp Glu Arg Lys Asn Pro Asp Ser Gln
 65 70 75 80
 Tyr Gly Glu Leu Ile Glu Lys Tyr Ile Lys Glu Gly Lys Ile Val Pro
 85 90 95
 Val Glu Ile Thr Ile Ser Leu Leu Lys Arg Glu Met Asp Gln Thr Met
 100 105 110
 Ala Ala Asn Ala Gln Lys Asn Lys Phe Leu Ile Asp Gly Phe Pro Arg
 115 120 125
 Asn Gln Asp Asn Leu Gln Gly Trp Asn Lys Thr Met Asp Gly Lys Ala
 130 135 140
 Asp Val Ser Phe Val Leu Phe Phe Asp Cys Asn Asn Glu Ile Cys Ile
 145 150 155 160
 Glu Arg Cys Leu Glu Arg Gly Lys Ser Ser Gly Arg Ser Asp Asp Asn
 165 170 175
 Arg Glu Ser Leu Glu Lys Arg Ile Gln Thr Tyr Leu Gln Ser Thr Lys
 180 185 190

Pro Ile Ile Asp Leu Tyr Glu Glu Met Gly Lys Val Lys Lys Ile Asp
 195 200 205
 Ala Ser Lys Ser Val Asp Glu Val Phe Asp Glu Val Val Gln Ile Phe
 210 215 220
 Asp Lys Glu Gly
 225

<210> 292
 <211> 130
 <212> PRT
 <213> Homo sapiens
 <400> 292

Met Ala Phe Cys Leu Arg Ala Ser Leu Gly Pro Asp Cys Cys Cys Trp
 1 5 10 15
 Tyr Gln Ser Pro Glu Thr Leu Pro Pro Trp Ser Pro Cys Met Pro Ser
 20 25 30
 Cys Ser Tyr Cys Leu Val Ala Leu Lys Gln His Ile Ser Thr Val Pro
 35 40 45
 Gly Arg Ile Val Gly Gly Phe Thr Thr Pro Ala Phe Leu Thr Ser Ser
 50 55 60
 Ser Ala Gln His Trp Val Pro Leu Pro Ser Phe Pro Ala Gly Ala Ser
 65 70 75 80
 Trp Ala Thr Val Ser Gly Ser Gly Pro Ala Arg Val Val Leu Leu Phe
 85 90 95
 Leu Leu Leu Leu Gly Asn His Thr Trp Gln Val Lys Cys Pro Lys His
 100 105 110
 Leu Val Ser Leu Pro Lys Asn Lys Pro Phe Leu Cys Thr Ser Leu Glu
 115 120 125
 Ala Arg
 130

<210> 293
 <211> 460
 <212> PRT
 <213> Homo sapiens
 <400> 293

Met Ala Ser Leu Leu Gln Ser Asp Arg Val Leu Tyr Leu Val Gln Gly
 1 5 10 15
 Glu Lys Lys Val Arg Ala Pro Leu Ser Gln Leu Tyr Phe Cys Arg Tyr
 20 25 30
 Cys Ser Glu Leu Arg Ser Leu Glu Cys Val Ser His Glu Val Asp Ser
 35 40 45
 His Tyr Cys Pro Ser Cys Leu Glu Asn Met Pro Ser Ala Glu Ala Lys
 50 55 60
 Leu Lys Lys Asn Arg Cys Ala Asn Cys Phe Asp Cys Pro Gly Cys Met
 65 70 75 80
 His Thr Leu Ser Thr Arg Ala Thr Ser Ile Ser Thr Gln Leu Pro Asp
 85 90 95
 Asp Pro Ala Lys Thr Thr Met Lys Lys Ala Tyr Tyr Leu Ala Cys Gly
 100 105 110
 Phe Cys Arg Trp Thr Ser Arg Asp Val Gly Met Ala Asp Lys Ser Val
 115 120 125
 Ala Ser Gly Gly Trp Gln Glu Pro Glu Asn Pro His Thr Gln Arg Met
 130 135 140
 Asn Lys Leu Ile Glu Tyr Tyr Gln Gln Leu Ala Gln Lys Glu Lys Val
 145 150 155 160
 Glu Arg Asp Arg Lys Lys Leu Ala Arg Arg Asn Tyr Met Pro Leu
 165 170 175
 Ala Phe Ser Asp Lys Tyr Gly Leu Gly Thr Arg Leu Gln Arg Pro Arg
 180 185 190
 Ala Gly Ala Ser Ile Ser Thr Leu Ala Gly Leu Ser Leu Lys Glu Gly
 195 200 205
 Glu Asp Gln Lys Glu Ile Lys Ile Glu Pro Ala Gln Ala Val Asp Glu
 210 215 220
 Val Glu Pro Leu Pro Glu Asp Tyr Tyr Thr Arg Pro Val Asn Leu Thr
 225 230 235 240
 Glu Val Thr Thr Leu Gln Gln Arg Leu Leu Gln Pro Asp Phe Gln Pro
 245 250 255
 Val Cys Ala Ser Gln Leu Tyr Pro Arg His Lys His Leu Leu Ile Lys

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<210> 294
<211> 524
<212> PRT
<213> Homo sapiens
<400> 294
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- 352 -

Glu Leu Glu Gly Ser Cys Leu Glu Val Thr Leu Ala Lys Pro Val Asp
 305 310 315 320
 Lys Glu Gln Tyr Ser Arg Tyr Gln Lys Ala Ala Arg Gly Gly Gly Ala
 325 330 335
 Ala Glu Ala Ala Gln Gln Pro Ser Tyr Val Tyr Ser Cys Asp Pro Tyr
 340 345 350
 Thr Leu Ala Tyr Tyr Gly Tyr Pro Tyr Asn Ala Leu Ile Gly Pro Asn
 355 360 365
 Arg Asp Tyr Phe Val Lys Val Ala Ile Pro Ala Ile Gly Ala Gln Tyr
 370 375 380
 Ser Met Phe Pro Ala Ala Pro Ala Pro Lys Met Ile Glu Asp Gly Lys
 385 390 395 400
 Ile His Thr Val Glu His Met Ile Ser Pro Ile Ala Val Gln Pro Asp
 405 410 415
 Pro Ala Ser Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
 420 425 430
 Ala Val Ile Pro Thr Val Ser Thr Pro Pro Phe Gln Gly Arg Pro
 435 440 445
 Ile Thr Pro Val Tyr Thr Val Ala Pro Asn Val Gln Arg Ile Pro Thr
 450 455 460
 Ala Gly Ile Tyr Gly Ala Ser Tyr Val Pro Phe Ala Ala Pro Ala Thr
 465 470 475 480
 Ala Thr Ile Ala Thr Leu Gln Lys Asn Ala Ala Ala Ala Ala Val
 485 490 495
 Tyr Gly Gly Tyr Ala Gly Tyr Ile Pro Gln Ala Phe Pro Ala Ala Ala
 500 505 510
 Ile Gln Val Pro Ile Pro Asp Val Tyr Gln Thr Tyr
 515 520

<210> 295
 <211> 1232
 <212> PRT
 <213> Homo sapiens
 <400> 295

Met Lys Glu Val Lys Gly Ile Pro Val Arg Val Ala Leu Arg Cys
 1 5 10 15
 Arg Pro Leu Val Pro Lys Glu Ile Ser Glu Gly Cys Gln Met Cys Leu
 20 25 30
 Ser Phe Val Pro Gly Glu Pro Gln Val Val Val Gly Thr Asp Lys Ser
 35 40 45
 Phe Thr Tyr Asp Phe Val Phe Asp Pro Ser Thr Glu Gln Glu Glu Val
 50 55 60
 Phe Asn Thr Ala Val Ala Pro Leu Ile Lys Gly Val Phe Lys Gly Tyr
 65 70 75 80
 Asn Ala Thr Val Leu Ala Tyr Gly Gln Thr Gly Ser Gly Lys Thr Tyr
 85 90 95
 Ser Met Gly Gly Ala Tyr Thr Ala Glu Gln Glu Asn Glu Pro Thr Val
 100 105 110
 Gly Val Ile Pro Arg Val Ile Gln Leu Leu Phe Lys Glu Ile Asp Lys
 115 120 125
 Lys Ser Asp Phe Glu Phe Thr Leu Lys Val Ser Tyr Leu Glu Ile Tyr
 130 135 140
 Asn Glu Glu Ile Leu Asp Leu Leu Cys Pro Ser Arg Glu Lys Ala Gln
 145 150 155 160
 Ile Asn Ile Arg Glu Asp Pro Lys Glu Gly Ile Lys Ile Val Gly Leu
 165 170 175
 Thr Glu Lys Thr Val Leu Val Ala Leu Asp Thr Val Ser Cys Leu Glu
 180 185 190
 Gln Gly Asn Asn Ser Arg Thr Val Ala Ser Thr Ala Met Asn Ser Gln
 195 200 205
 Ser Ser Arg Ser His Ala Ile Phe Thr Ile Ser Leu Glu Gln Gly Lys
 210 215 220
 Lys Ser Asp Lys Asn Ser Ser Phe Arg Ser Lys Leu His Leu Val Asp
 225 230 235 240
 Leu Ala Gly Ser Glu Arg Gln Lys Lys Thr Lys Ala Glu Gly Asp Arg
 245 250 255
 Leu Lys Glu Gly Ile Asn Ile Asn Arg Gly Leu Leu Cys Leu Gly Asn
 260 265 270
 Val Ile Ser Ala Leu Gly Asp Asp Lys Lys Gly Gly Phe Ala Pro Tyr

275					280					285					
Arg	Asp	Ser	Lys	Leu	Thr	Arg	Leu	Leu	Gln	Asp	Ser	Leu	Gly	Gly	Asn
	290						295				300				
Ser	His	Thr	Leu	Met	Ile	Ala	Cys	Val	Ser	Pro	Ala	Asp	Ser	Asn	Leu
305					310				315						320
Glu	Glu	Thr	Leu	Asn	Thr	Leu	Arg	Tyr	Ala	Asp	Arg	Ala	Arg	Lys	Ile
				325					330					335	
Lys	Asn	Lys	Pro	Ile	Val	Asn	Ile	Asp	Pro	Gln	Thr	Ala	Glu	Leu	Asn
			340					345					350		
His	Leu	Lys	Gln	Gln	Val	Gln	Gln	Leu	Gln	Val	Leu	Leu	Leu	Gln	Ala
		355					360					365			
His	Gly	Gly	Thr	Leu	Pro	Gly	Ser	Ile	Thr	Val	Glu	Pro	Ser	Glu	Asn
	370					375					380				
Leu	Gln	Ser	Leu	Met	Glu	Lys	Asn	Gln	Ser	Leu	Val	Glu	Glu	Asn	Glu
385					390					395					400
Lys	Leu	Ser	Arg	Gly	Leu	Ser	Glu	Ala	Ala	Gly	Gln	Thr	Ala	Gln	Met
				405					410					415	
Leu	Glu	Arg	Ile	Trp	Thr	Glu	Gln	Ala	Asn	Glu	Lys	Met	Asn	Ala	
			420				425					430			
Lys	Leu	Glu	Glu	Leu	Arg	Gln	His	Ala	Ala	Cys	Lys	Leu	Asp	Leu	Gln
	435						440					445			
Lys	Leu	Val	Glu	Thr	Leu	Glu	Asp	Gln	Glu	Leu	Lys	Glu	Asn	Val	Glu
	450						455					460			
Ile	Ile	Cys	Asn	Leu	Gln	Gln	Leu	Ile	Thr	Gln	Leu	Ser	Asp	Glu	Thr
465					470					475					480
Val	Ala	Cys	Met	Ala	Ala	Ala	Ile	Asp	Thr	Ala	Val	Glu	Gln	Glu	Ala
			485						490					495	
Gln	Val	Glu	Thr	Ser	Pro	Glu	Thr	Ser	Arg	Ser	Ser	Asp	Ala	Phe	Thr
			500					505					510		
Thr	Gln	His	Ala	Leu	Arg	Gln	Ala	Gln	Met	Ser	Lys	Glu	Leu	Val	Glu
	515						520					525			
Leu	Asn	Lys	Ala	Leu	Ala	Leu	Lys	Glu	Ala	Leu	Ala	Arg	Lys	Met	Thr
	530						535				540				
Gln	Asn	Asp	Ser	Gln	Leu	Gln	Pro	Ile	Gln	Tyr	Gln	Tyr	Gln	Asp	Asn
545					550					555					560
Ile	Lys	Glu	Pro	Glu	Leu	Glu	Val	Ile	Asn	Leu	Gln	Lys	Glu	Lys	Glu
				565					570					575	
Glu	Leu	Val	Leu	Glu	Leu	Gln	Thr	Ala	Lys	Lys	Asp	Ala	Asn	Gln	Ala
			580					585					590		
Lys	Leu	Ser	Glu	Arg	Arg	Arg	Lys	Arg	Leu	Gln	Glu	Leu	Glu	Gly	Gln
		595					600					605			
Ile	Ala	Asp	Leu	Lys	Lys	Lys	Leu	Asn	Glu	Gln	Ser	Lys	Leu	Leu	Lys
	610					615					620				
Leu	Lys	Glu	Ser	Thr	Glu	Arg	Thr	Val	Ser	Lys	Leu	Asn	Gln	Glu	Ile
625					630					635					640
Arg	Met	Met	Lys	Asn	Gln	Arg	Val	Gln	Leu	Met	Arg	Gln	Met	Lys	Glu
				645					650					655	
Asp	Ala	Glu	Lys	Phe	Arg	Gln	Trp	Lys	Gln	Lys	Arg	Asp	Lys	Glu	Val
		660						665					670		
Ile	Gln	Leu	Lys	Glu	Arg	Asp	Arg	Lys	Arg	Gln	Tyr	Glu	Leu	Leu	Lys
	675						680					685			
Leu	Glu	Arg	Asn	Phe	Gln	Lys	Gln	Ser	Asn	Val	Leu	Arg	Arg	Lys	Thr
	690					695					700				
Glu	Glu	Ala	Ala	Ala	Ala	Asn	Lys	Arg	Leu	Lys	Asp	Ala	Leu	Gln	Lys
705					710					715					720
Gln	Arg	Glu	Val	Ala	Asp	Lys	Arg	Lys	Glu	Thr	Gln	Ser	Arg	Gly	Met
				725					730					735	
Glu	Gly	Thr	Ala	Ala	Arg	Val	Lys	Asn	Trp	Leu	Gly	Asn	Glu	Ile	Glu
			740					745					750		
Val	Met	Val	Ser	Thr	Glu	Glu	Ala	Lys	Arg	His	Leu	Asn	Asp	Leu	Leu
	755						760					765			
Glu	Asp	Arg	Lys	Ile	Leu	Ala	Gln	Asp	Val	Ala	Gln	Leu	Lys	Glu	Lys
	770					775						780			
Lys	Glu	Ser	Gly	Glu	Asn	Pro	Pro	Pro	Lys	Leu	Arg	Arg	Arg	Thr	Phe
785					790					795					800
Ser	Leu	Thr	Glu	Val	Arg	Gly	Gln	Val	Ser	Glu	Ser	Glu	Asp	Ser	Ile
				805						810				815	
Thr	Lys	Gln	Ile	Glu	Ser	Leu	Glu	Thr	Glu	Met	Glu	Phe	Arg	Ser	Ala
			820					825					830		

Gln Ile Ala Asp Leu Gln Gln Lys Leu Leu Asp Ala Glu Ser Glu Asp
 835 840 845
 Arg Pro Lys Gln Arg Trp Glu Asn Ile Ala Thr Ile Leu Glu Ala Lys
 850 855 860
 Cys Ala Leu Lys Tyr Leu Ile Gly Glu Leu Val Ser Ser Lys Ile Gln
 865 870 875 880
 Val Ser Lys Leu Glu Ser Ser Leu Lys Gln Ser Lys Thr Ser Cys Ala
 885 890 895
 Asp Met Gln Lys Met Leu Phe Glu Glu Arg Asn His Phe Ala Glu Ile
 900 905 910
 Glu Thr Glu Leu Gln Ala Glu Leu Val Arg Met Glu Gln Gln His Gln
 915 920 925
 Glu Lys Val Leu Tyr Leu Leu Ser Gln Leu Gln Gln Ser Gln Met Ala
 930 935 940
 Glu Lys Gln Leu Glu Glu Ser Val Ser Glu Lys Glu Gln Gln Leu Leu
 945 950 955 960
 Ser Thr Leu Lys Cys Gln Asp Glu Glu Leu Glu Lys Met Arg Glu Val
 965 970 975
 Cys Glu Gln Asn Gln Gln Leu Leu Arg Glu Asn Glu Ile Ile Lys Gln
 980 985 990
 Lys Leu Thr Leu Leu Gln Val Ala Ser Arg Gln Lys His Leu Pro Lys
 995 1000 1005
 Asp Thr Leu Leu Ser Pro Asp Ser Ser Phe Glu Tyr Val Gln Pro
 1010 1015 1020
 Lys Pro Lys Pro Ser Arg Val Lys Glu Lys Phe Leu Glu Gln Ser
 1025 1030 1035
 Met Asp Ile Glu Asp Leu Lys Tyr Cys Ser Glu His Ser Val Asn
 1040 1045 1050
 Glu His Glu Asp Gly Asp Gly Asp Asp Asp Glu Gly Asp Asp Glu
 1055 1060 1065
 Glu Trp Lys Pro Thr Lys Leu Val Asn Val Ser Arg Lys Asn Ile
 1070 1075 1080
 Gln Gly Cys Ser Cys Lys Gly Trp Cys Gly Asn Lys Gln Cys Gly
 1085 1090 1095
 Cys Arg Lys Gln Lys Ser Asp Cys Gly Val Asp Cys Cys Cys Asp
 1100 1105 1110
 Pro Thr Lys Cys Arg Asn Arg Gln Gln Gly Lys Asp Ser Leu Gly
 1115 1120 1125
 Thr Val Glu Arg Thr Gln Asp Ser Glu Ser Ser Phe Lys Leu Glu
 1130 1135 1140
 Asp Pro Thr Glu Val Thr Pro Gly Leu Ser Phe Phe Asn Pro Val
 1145 1150 1155
 Cys Ala Thr Pro Asn Ser Lys Ile Leu Lys Glu Met Cys Asp Val
 1160 1165 1170
 Glu Gln Val Leu Ser Lys Lys Thr Pro Pro Ala Pro Ser Pro Phe
 1175 1180 1185
 Asp Leu Pro Glu Leu Lys His Val Ala Thr Glu Tyr Gln Glu Asn
 1190 1195 1200
 Lys Ala Pro Gly Lys Lys Lys Lys Arg Ala Leu Ala Ser Asn Thr
 1205 1210 1215
 Ser Phe Phe Ser Gly Cys Ser Pro Ile Glu Glu Glu Ala His
 1220 1225 1230

<210> 296

<211> 230

<212> PRT

<213> Homo sapiens

<400> 296

Met Ala Gln Gly Leu Ile Glu Val Glu Arg Lys Phe Leu Pro Gly Pro
 1 5 10 15
 Gly Thr Glu Glu Arg Leu Gln Glu Leu Gly Gly Thr Leu Glu Tyr Arg
 20 25 30
 Val Thr Phe Arg Asp Thr Tyr Tyr Asp Thr Pro Glu Leu Ser Leu Met
 35 40 45
 Gln Ala Asp His Trp Leu Arg Arg Arg Glu Asp Ser Gly Trp Glu Leu
 50 55 60
 Lys Cys Pro Gly Ala Ala Gly Val Leu Gly Pro His Thr Glu Tyr Lys
 65 70 75 80
 Glu Leu Thr Ala Glu Pro Thr Ile Val Ala Gln Leu Cys Lys Val Leu

[illegible]

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<210> 297
<211> 329
<212> PRT
<213> Homo sapiens
<400> 297
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Met 1	Ser	Gly	Val	Val 5	Pro	Thr	Ala	Pro	Glu 10	Gln	Pro	Ala	Gly	Glu 15	Met
Glu	Asn	Gln	Thr	Lys 20	Pro	Pro	Asp	Pro 25	Arg	Pro	Asp	Ala	Pro 30	Pro	Glu
Tyr	Ser 35	Ser	His	Phe	Leu	Pro	Gly 40	Pro	Pro	Gly	Thr	Ala 45	Val	Pro	Pro
Pro	Thr 50	Gly	Tyr	Pro	Gly	Gly 55	Leu	Pro	Met	Gly	Tyr 60	Tyr	Ser	Pro	Gln
Gln 65	Pro	Ser	Thr	Phe	Pro 70	Leu	Tyr	Gln	Pro	Val 75	Gly	Gly	Ile	His	Pro 80
Val	Arg	Tyr	Gln	Pro 85	Gly	Lys	Tyr	Pro	Met 90	Pro	Asn	Gln	Ser	Val 95	Pro
Ile	Thr	Trp	Met 100	Pro	Gly	Pro	Thr	Pro 105	Met	Ala	Asn	Cys	Pro 110	Pro	Gly
Leu	Glu	Tyr 115	Leu	Val	Gln	Leu	Asp 120	Asn	Ile	His	Val	Leu 125	Gln	His	Phe
Glu	Pro 130	Leu	Glu	Met	Met	Thr 135	Cys	Phe	Glu	Thr	Asn 140	Asn	Arg	Tyr	Asp
Ile 145	Lys	Asn	Asn	Ser	Asp 150	Gln	Met	Val	Tyr	Val 155	Val	Thr	Glu	Asp	Thr 160
Asp	Asp	Phe	Thr	Arg 165	Asn	Ala	Tyr	Arg	Thr 170	Leu	Arg	Pro	Phe	Val 175	Leu
Arg	Val	Thr 180	Asp	Cys	Met	Gly	Arg	Glu 185	Ile	Met	Thr	Met	Gln 190	Arg	Pro
Phe	Arg	Cys 195	Thr	Cys	Cys	Cys	Phe 200	Cys	Cys	Pro	Ser	Ala 205	Arg	Gln	Glu
Leu	Glu 210	Val	Gln	Cys	Pro	Pro	Gly 215	Val	Thr	Ile	Gly 220	Phe	Val	Ala	Glu
His 225	Trp	Asn	Leu	Cys	Arg 230	Ala	Val	Tyr	Ser	Ile 235	Gln	Asn	Glu	Lys	Lys 240
Glu	Asn	Val	Met	Arg 245	Val	Arg	Gly	Pro	Cys 250	Ser	Thr	Tyr	Gly	Cys 255	Gly
Ser	Asp	Ser 260	Val	Phe	Glu	Val	Lys	Ser 265	Leu	Asp	Gly	Ile	Ser 270	Asn	Ile
Gly	Ser 275	Ile	Ile	Arg	Lys	Trp	Asn 280	Gly	Leu	Leu	Ser	Ala 285	Met	Ala	Asp
Ala	Asp 290	His	Phe	Asp	Ile	His	Phe 295	Pro	Leu	Asp	Leu	Asp	Val	Lys	Met
Lys 305	Ala	Met	Ile	Phe	Gly 310	Ala	Cys	Phe	Leu	Ile 315	Asp	Phe	Met	Tyr	Phe 320
Glu	Arg	Ser	Pro	Pro 325	Gln	Arg	Ser	Arg							

<210> 298

<211> 323
 <212> PRT
 <213> Homo sapiens
 <400> 298
 Met Gly Gly Gln Val Ser Ala Ser Asn Ser Phe Ser Arg Leu His Cys
 1 5 10 15
 Arg Asn Ala Asn Glu Asp Trp Met Ser Ala Leu Cys Pro Arg Leu Trp
 20 25 30
 Asp Val Pro Leu His His Leu Ser Ile Pro Gly Ser His Asp Thr Met
 35 40 45
 Thr Tyr Cys Leu Asn Lys Lys Ser Pro Ile Ser His Glu Glu Ser Arg
 50 55 60
 Leu Leu Gln Leu Leu Asn Lys Ala Leu Pro Cys Ile Thr Arg Pro Val
 65 70 75 80
 Val Leu Lys Trp Ser Val Thr Gln Ala Leu Asp Val Thr Glu Gln Leu
 85 90 95
 Asp Ala Gly Val Arg Tyr Leu Asp Leu Arg Ile Ala His Met Leu Glu
 100 105 110
 Gly Ser Glu Lys Asn Leu His Phe Val His Met Val Tyr Thr Thr Ala
 115 120 125
 Leu Val Glu Asp Thr Leu Thr Glu Ile Ser Glu Trp Leu Glu Arg His
 130 135 140
 Pro Arg Glu Val Val Ile Leu Ala Cys Arg Asn Phe Glu Gly Leu Ser
 145 150 155 160
 Glu Asp Leu His Glu Tyr Leu Val Ala Cys Ile Lys Asn Ile Phe Gly
 165 170 175
 Asp Met Leu Cys Pro Arg Gly Glu Val Pro Thr Leu Arg Gln Leu Trp
 180 185 190
 Ser Arg Gly Gln Gln Val Ile Val Ser Tyr Glu Asp Glu Ser Ser Leu
 195 200 205
 Arg Arg His His Glu Leu Trp Pro Gly Val Pro Tyr Trp Trp Gly Asn
 210 215 220
 Arg Val Lys Thr Glu Ala Leu Ile Arg Tyr Leu Glu Thr Met Lys Ser
 225 230 235 240
 Cys Gly Arg Pro Gly Gly Leu Phe Val Ala Gly Ile Asn Leu Thr Glu
 245 250 255
 Asn Leu Gln Tyr Val Leu Ala His Pro Ser Glu Ser Leu Glu Lys Met
 260 265 270
 Thr Leu Pro Asn Leu Pro Arg Leu Ser Ala Trp Val Arg Glu Gln Cys
 275 280 285
 Pro Gly Pro Gly Ser Arg Cys Thr Asn Ile Ile Ala Gly Asp Phe Ile
 290 295 300
 Gly Ala Asp Gly Phe Val Ser Asp Val Ile Ala Leu Asn Gln Lys Leu
 305 310 315 320
 Leu Trp Cys

<210> 299
 <211> 103
 <212> PRT
 <213> Homo sapiens
 <400> 299
 Met Thr Thr Glu Ile Gly Trp Trp Lys Leu Thr Phe Leu Arg Lys Lys
 1 5 10 15
 Lys Ser Thr Pro Lys Val Leu Tyr Glu Ile Pro Asp Thr Tyr Ala Gln
 20 25 30
 Thr Glu Gly Asp Ala Glu Pro Pro Arg Pro Asp Ala Gly Gly Pro Asn
 35 40 45
 Ser Asp Phe Asn Thr Arg Leu Glu Lys Ile Val Asp Lys Ser Thr Lys
 50 55 60
 Gly Lys His Val Lys Val Ser Asn Ser Gly Arg Phe Lys Glu Lys Lys
 65 70 75 80
 Lys Val Arg Ala Thr Leu Ala Glu Asn Pro Asn Leu Phe Asp Asp His
 85 90 95
 Glu Glu Gly Arg Ser Ser Lys
 100

<210> 300
 <211> 999

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<212> PRT
<213> Homo sapiens
<400> 300
Met Gly Val Ala Gly Arg Asn Arg Pro Gly Ala Ala Trp Ala Val Leu
1      5      10      15
Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu Leu Ala Gly Ala Val
20     25     30
Pro Pro Gly Arg Gly Arg Ala Ala Gly Pro Gln Glu Asp Val Asp Glu
35     40     45
Cys Ala Gln Gly Leu Asp Asp Cys His Ala Asp Ala Leu Cys Gln Asn
50     55     60
Thr Pro Thr Ser Tyr Lys Cys Ser Cys Lys Pro Gly Tyr Gln Gly Glu
65     70     75     80
Gly Arg Gln Cys Glu Asp Ile Asp Glu Cys Gly Asn Glu Leu Asn Gly
85     90     95
Gly Cys Val His Asp Cys Leu Asn Ile Pro Gly Asn Tyr Arg Cys Thr
100    105    110
Cys Phe Asp Gly Phe Met Leu Ala His Asp Gly His Asn Cys Leu Asp
115    120    125
Val Asp Glu Cys Leu Glu Asn Asn Gly Gly Cys Gln His Thr Cys Val
130    135    140
Asn Val Met Gly Ser Tyr Glu Cys Cys Cys Lys Glu Gly Phe Phe Leu
145    150    155    160
Ser Asp Asn Gln His Thr Cys Ile His Arg Ser Glu Glu Gly Leu Ser
165    170    175
Cys Met Asn Lys Asp His Gly Cys Ser His Ile Cys Lys Glu Ala Pro
180    185    190
Arg Gly Ser Val Ala Cys Glu Cys Arg Pro Gly Phe Glu Leu Ala Lys
195    200    205
Asn Gln Arg Asp Cys Ile Leu Thr Cys Asn His Gly Asn Gly Gly Cys
210    215    220
Gln His Ser Cys Asp Asp Thr Ala Asp Gly Pro Glu Cys Ser Cys His
225    230    235    240
Pro Gln Tyr Lys Met His Thr Asp Gly Arg Ser Cys Leu Glu Arg Glu
245    250    255
Asp Thr Val Leu Glu Val Thr Glu Ser Asn Thr Thr Ser Val Val Asp
260    265    270
Gly Asp Lys Arg Val Lys Arg Arg Leu Leu Met Glu Thr Cys Ala Val
275    280    285
Asn Asn Gly Gly Cys Asp Arg Thr Cys Lys Asp Thr Ser Thr Gly Val
290    295    300
His Cys Ser Cys Pro Val Gly Phe Thr Leu Gln Leu Asp Gly Lys Thr
305    310    315    320
Cys Lys Asp Ile Asp Glu Cys Gln Thr Arg Asn Gly Gly Cys Asp His
325    330    335
Phe Cys Lys Asn Ile Val Gly Ser Phe Asp Cys Gly Cys Lys Lys Gly
340    345    350
Phe Lys Leu Leu Thr Asp Glu Lys Ser Cys Gln Asp Val Asp Glu Cys
355    360    365
Ser Leu Asp Arg Thr Cys Asp His Ser Cys Ile Asn His Pro Gly Thr
370    375    380
Phe Ala Cys Ala Cys Asn Arg Gly Tyr Thr Leu Tyr Gly Phe Thr His
385    390    395    400
Cys Gly Asp Thr Asn Glu Cys Ser Ile Asn Asn Gly Gly Cys Gln Gln
405    410    415
Val Cys Val Asn Thr Val Gly Ser Tyr Glu Cys Gln Cys His Pro Gly
420    425    430
Tyr Lys Leu His Trp Asn Lys Lys Asp Cys Val Glu Val Lys Gly Leu
435    440    445
Leu Pro Thr Ser Val Ser Pro Arg Val Ser Leu His Cys Gly Lys Ser
450    455    460
Gly Gly Gly Asp Gly Cys Phe Leu Arg Cys His Ser Gly Ile His Leu
465    470    475    480
Ser Ser Asp Val Thr Thr Ile Arg Thr Ser Val Thr Phe Lys Leu Asn
485    490    495
Glu Gly Lys Cys Ser Leu Lys Asn Ala Glu Leu Phe Pro Glu Gly Leu
500    505    510
Arg Pro Ala Leu Pro Glu Lys His Ser Ser Val Lys Glu Ser Phe Arg
515    520    525

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Tyr Val Asn Leu Thr Cys Ser Ser Gly Lys Gln Val Pro Gly Ala Pro
530 535 540
Gly Arg Pro Ser Thr Pro Lys Glu Met Phe Ile Thr Val Glu Phe Glu
545 550 555 560
Leu Glu Thr Asn Gln Lys Glu Val Thr Ala Ser Cys Asp Leu Ser Cys
565 570 575
Ile Val Lys Arg Thr Glu Lys Arg Leu Arg Lys Ala Ile Arg Thr Leu
580 585 590
Arg Lys Ala Val His Arg Glu Gln Phe His Leu Gln Leu Ser Gly Met
595 600 605
Asn Leu Asp Val Ala Lys Lys Pro Pro Arg Thr Ser Glu Arg Gln Ala
610 615 620
Glu Ser Cys Gly Val Gly Gln Gly His Ala Glu Asn Gln Cys Val Ser
625 630 635 640
Cys Arg Ala Gly Thr Tyr Tyr Asp Gly Ala Arg Glu Arg Cys Ile Leu
645 650 655
Cys Pro Asn Gly Thr Phe Gln Asn Glu Glu Gly Gln Met Thr Cys Glu
660 665 670
Pro Cys Pro Arg Pro Gly Asn Ser Gly Ala Leu Lys Thr Pro Glu Ala
675 680 685
Trp Asn Met Ser Glu Cys Gly Gly Leu Cys Gln Pro Gly Glu Tyr Ser
690 695 700
Ala Asp Gly Phe Ala Pro Cys Gln Leu Cys Ala Leu Gly Thr Phe Gln
705 710 715 720
Pro Glu Ala Gly Arg Thr Ser Cys Phe Pro Cys Gly Gly Gly Leu Ala
725 730 735
Thr Lys His Gln Gly Ala Thr Ser Phe Gln Asp Cys Glu Thr Arg Val
740 745 750
Gln Cys Ser Pro Gly His Phe Tyr Asn Thr Thr Thr His Arg Cys Ile
755 760 765
Arg Cys Pro Val Gly Thr Tyr Gln Pro Glu Phe Gly Lys Asn Asn Cys
770 775 780
Val Ser Cys Pro Gly Asn Thr Thr Thr Asp Phe Asp Gly Ser Thr Asn
785 790 795 800
Ile Thr Gln Cys Lys Asn Arg Arg Cys Gly Gly Glu Leu Gly Asp Phe
805 810 815
Thr Gly Tyr Ile Glu Ser Pro Asn Tyr Pro Gly Asn Tyr Pro Ala Asn
820 825 830
Thr Glu Cys Thr Trp Thr Ile Asn Pro Pro Pro Lys Arg Arg Ile Leu
835 840 845
Ile Val Pro Glu Ile Phe Leu Pro Ile Glu Asp Asp Cys Gly Asp
850 855 860
Tyr Leu Val Met Arg Lys Thr Ser Ser Ser Asn Ser Val Thr Thr Tyr
865 870 875 880
Glu Thr Cys Gln Thr Tyr Glu Arg Pro Ile Ala Phe Thr Ser Arg Ser
885 890 895
Lys Lys Leu Trp Ile Gln Phe Lys Ser Asn Glu Gly Asn Ser Ala Arg
900 905 910
Gly Phe Gln Val Pro Tyr Val Thr Tyr Asp Glu Asp Tyr Gln Glu Leu
915 920 925
Ile Glu Asp Ile Val Arg Asp Gly Arg Leu Tyr Ala Ser Glu Asn His
930 935 940
Gln Glu Ile Leu Lys Asp Lys Lys Leu Ile Lys Ala Leu Phe Asp Val
945 950 955 960
Leu Ala His Pro Gln Asn Tyr Phe Lys Tyr Thr Ala Gln Glu Ser Arg
965 970 975
Glu Met Phe Pro Arg Ser Phe Ile Arg Leu Leu Arg Ser Lys Val Ser
980 985 990
Arg Phe Leu Arg Pro Tyr Lys
995

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<210> 301

<211> 340

<212> PRT

<213> Homo sapiens

<400> 301

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Met Cys Ala Gln Tyr Cys Ile Ser Phe Ala Asp Val Glu Lys Ala His
1 5 10 15
Ile Asn Ile Arg Asp Ser Ile His Leu Thr Pro Val Leu Thr Ser Ser

```

20 25 30
 Ile Leu Asn Gln Leu Thr Gly Arg Asn Leu Phe Phe Lys Cys Glu Leu
 35 40 45
 Phe Gln Lys Thr Gly Ser Phe Lys Ile Arg Gly Ala Leu Asn Ala Val
 50 55 60
 Arg Ser Leu Val Pro Asp Ala Leu Glu Arg Lys Pro Lys Ala Val Val
 65 70 75 80
 Thr His Ser Ser Gly Asn His Gly Gln Ala Leu Thr Tyr Ala Ala Lys
 85 90 95
 Leu Glu Gly Ile Pro Ala Tyr Ile Val Val Pro Gln Thr Ala Pro Asp
 100 105 110
 Cys Lys Lys Leu Ala Ile Gln Ala Tyr Gly Ala Ser Ile Val Tyr Cys
 115 120 125
 Glu Pro Ser Asp Glu Ser Arg Glu Asn Val Ala Lys Arg Val Thr Glu
 130 135 140
 Glu Thr Glu Gly Ile Met Val His Pro Asn Gln Glu Pro Ala Val Ile
 145 150 155 160
 Ala Gly Gln Gly Thr Ile Ala Leu Glu Val Leu Asn Gln Val Pro Leu
 165 170 175
 Val Asp Ala Leu Val Val Pro Val Gly Gly Gly Gly Met Leu Ala Gly
 180 185 190
 Ile Ala Ile Thr Val Lys Ala Leu Lys Pro Ser Val Lys Val Tyr Ala
 195 200 205
 Ala Glu Pro Ser Asn Ala Asp Asp Cys Tyr Gln Ser Lys Leu Lys Gly
 210 215 220
 Lys Leu Met Pro Asn Leu Tyr Pro Pro Glu Thr Ile Ala Asp Gly Val
 225 230 235 240
 Lys Ser Ser Ile Gly Leu Asn Thr Trp Pro Ile Ile Arg Asp Leu Val
 245 250 255
 Asp Asp Ile Phe Thr Val Thr Glu Asp Glu Ile Lys Cys Ala Thr Gln
 260 265 270
 Leu Val Trp Glu Arg Met Lys Leu Ile Glu Pro Thr Ala Gly Val
 275 280 285
 Gly Val Ala Ala Val Leu Ser Gln His Phe Gln Thr Val Ser Pro Glu
 290 295 300
 Val Lys Asn Ile Cys Ile Val Leu Ser Gly Gly Asn Val Asp Leu Thr
 305 310 315 320
 Ser Ser Ile Thr Trp Val Lys Gln Ala Glu Arg Pro Ala Ser Tyr Gln
 325 330 335
 Ser Val Ser Val
 340

<210> 302
 <211> 218
 <212> PRT
 <213> Homo sapiens
 <400> 302

Met Asn Arg Leu Phe Gly Lys Ala Lys Pro Lys Ala Pro Arg Pro Ser
 1 5 10 15
 Leu Thr Asp Cys Ile Gly Thr Val Asp Ser Arg Ala Glu Ser Ile Asp
 20 25 30
 Lys Lys Ile Ser Arg Leu Asp Ala Glu Leu Val Lys Tyr Lys Asp Gln
 35 40 45
 Ile Lys Lys Met Arg Glu Gly Pro Ala Lys Asn Met Val Lys Gln Lys
 50 55 60
 Ala Leu Arg Val Leu Lys Gln Lys Arg Met Tyr Glu Gln Gln Arg Asp
 65 70 75 80
 Asn Leu Ala Asn Ser His Ser Thr Trp Thr Gly His Tyr Thr Ile Gln
 85 90 95
 Ser Leu Lys Asp Thr Lys Thr Thr Val Asp Ala Met Lys Leu Gly Val
 100 105 110
 Lys Glu Met Lys Lys Ala Tyr Lys Pro Val Lys Ile Asp Gln Ile Glu
 115 120 125
 Asp Leu Gln Asp Gln Leu Glu Asp Met Met Glu Asp Ala Asn Glu Ile
 130 135 140
 Gln Glu Ala Leu Ser Arg Ser Tyr Gly Thr Pro Glu Leu Asp Glu Asp
 145 150 155 160
 Asp Leu Glu Ala Glu Leu Asp Ala Leu Gly Asp Glu Leu Leu Ala Asp
 165 170 175

Glu Asp Ser Ser Tyr Leu Asp Glu Ala Ala Ser Ala Pro Ala Ile Pro
 180 185 190
 Glu Gly Val Pro Thr Asp Thr Lys Asn Lys Asp Gly Val Leu Val Asp
 195 200 205
 Glu Phe Gly Leu Pro Gln Ile Pro Ala Ser
 210 215

 <210> 303
 <211> 635
 <212> PRT
 <213> Homo sapiens
 <400> 303
 Met Ala Pro Pro Leu Leu Leu Leu Leu Leu Ala Ser Gly Ala Ala Ala
 1 5 10 15
 Cys Pro Leu Pro Cys Val Cys Gln Asn Leu Ser Glu Ser Leu Ser Thr
 20 25 30
 Leu Cys Ala His Arg Gly Leu Leu Phe Val Pro Pro Asn Val Asp Arg
 35 40 45
 Arg Thr Val Glu Leu Arg Leu Ala Asp Asn Phe Ile Gln Ala Leu Gly
 50 55 60
 Pro Pro Asp Phe Arg Asn Met Thr Gly Leu Val Asp Leu Thr Leu Ser
 65 70 75 80
 Arg Asn Ala Ile Thr Arg Ile Gly Ala Arg Ala Phe Gly Asp Leu Glu
 85 90 95
 Ser Leu Arg Ser Leu His Leu Asp Gly Asn Arg Leu Val Glu Leu Gly
 100 105 110
 Thr Gly Ser Leu Arg Gly Pro Val Asn Leu Gln His Leu Ile Leu Ser
 115 120 125
 Gly Asn Gln Leu Gly Arg Ile Ala Pro Gly Ala Phe Asp Asp Phe Leu
 130 135 140
 Glu Ser Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Arg Gln Val
 145 150 155 160
 Pro Trp Ala Gly Ile Gly Ala Met Pro Ala Leu His Thr Leu Asn Leu
 165 170 175
 Asp His Asn Leu Ile Asp Ala Leu Pro Pro Gly Ala Phe Ala Gln Leu
 180 185 190
 Gly Gln Leu Ser Arg Leu Asp Leu Thr Ser Asn Arg Leu Ala Thr Leu
 195 200 205
 Ala Pro Asp Pro Leu Phe Ser Arg Gly Arg Asp Ala Glu Ala Ser Pro
 210 215 220
 Ala Pro Leu Val Leu Ser Phe Ser Gly Asn Pro Leu His Cys Asn Cys
 225 230 235 240
 Glu Leu Leu Trp Leu Arg Arg Leu Ala Arg Pro Asp Asp Leu Glu Thr
 245 250 255
 Cys Ala Ser Pro Pro Gly Leu Ala Gly Arg Tyr Phe Trp Ala Val Pro
 260 265 270
 Glu Gly Glu Phe Ser Cys Glu Pro Pro Leu Ile Ala Arg His Thr Gln
 275 280 285
 Arg Leu Trp Val Leu Glu Gly Gln Arg Ala Thr Leu Arg Cys Arg Ala
 290 295 300
 Leu Gly Asp Pro Ala Pro Thr Met His Trp Val Gly Pro Asp Asp Arg
 305 310 315 320
 Leu Val Gly Asn Ser Ser Arg Ala Arg Ala Phe Pro Asn Gly Thr Leu
 325 330 335
 Glu Ile Gly Val Thr Gly Ala Gly Asp Ala Gly Gly Tyr Thr Cys Ile
 340 345 350
 Ala Thr Asn Pro Ala Gly Glu Ala Thr Ala Arg Val Glu Leu Arg Val
 355 360 365
 Leu Ala Leu Pro His Gly Gly Asn Ser Ser Ala Glu Gly Gly Arg Pro
 370 375 380
 Gly Pro Ser Asp Ile Ala Ala Ser Ala Arg Thr Ala Ala Glu Gly Glu
 385 390 395 400
 Gly Thr Leu Glu Ser Glu Pro Ala Val Gln Val Thr Glu Val Thr Ala
 405 410 415
 Thr Ser Gly Leu Val Ser Trp Gly Pro Gly Arg Pro Ala Asp Pro Val
 420 425 430
 Trp Met Phe Gln Ile Gln Tyr Asn Ser Ser Glu Asp Glu Thr Leu Ile
 435 440 445
 Tyr Arg Ile Val Pro Ala Ser Ser His His Phe Leu Leu Lys His Leu

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      450              455              460
Val Pro Gly Ala Asp Tyr Asp Leu Cys Leu Leu Ala Leu Ser Pro Ala
465              470              475              480
Ala Gly Pro Ser Asp Leu Thr Ala Thr Arg Leu Leu Gly Cys Ala His
      485              490              495
Phe Ser Thr Leu Pro Ala Ser Pro Leu Cys His Ala Leu Gln Ala His
      500              505              510
Val Leu Gly Gly Thr Leu Thr Val Ala Val Gly Gly Val Leu Val Ala
      515              520              525
Ala Leu Leu Val Phe Thr Val Ala Leu Leu Val Arg Gly Arg Gly Ala
      530              535              540
Gly Asn Gly Arg Leu Pro Leu Lys Leu Ser His Val Gln Ser Gln Thr
545              550              555              560
Asn Gly Gly Pro Ser Pro Thr Pro Lys Ala His Pro Pro Arg Ser Pro
      565              570              575
Pro Pro Arg Pro Gln Arg Ser Cys Ser Leu Asp Leu Gly Asp Ala Gly
      580              585              590
Cys Tyr Gly Tyr Ala Arg Arg Leu Gly Gly Ala Trp Ala Arg Arg Ser
      595              600              605
His Ser Val His Gly Gly Leu Leu Gly Ala Gly Cys Arg Gly Val Gly
      610              615              620
Gly Ser Ala Glu Arg Leu Glu Glu Ser Val Val
625              630              635

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<210> 304
<211> 498
<212> PRT
<213> Homo sapiens
<400> 304

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Met Asp Val Thr Asp His Tyr Glu Asp Val Arg Lys Ile Tyr Asp Asp
1      5      10      15
Phe Leu Lys Asn Ser Asn Met Leu Asp Leu Ile Asp Val Tyr Gln Lys
      20      25      30
Cys Arg Ala Leu Thr Ser Asn Cys Glu Asn Tyr Asn Thr Val Ser Pro
      35      40      45
Ser Gln Leu Leu Asp Phe Leu Ser Gly Lys Gln Tyr Ala Val Gly Asp
      50      55      60
Glu Thr Asp Leu Ser Ile Pro Thr Ser Pro Thr Ser Lys Tyr Asn Arg
65      70      75      80
Asp Asn Glu Lys Val Gln Leu Leu Ala Arg Lys Ile Ile Phe Ser Tyr
      85      90      95
Leu Asn Leu Leu Val Asn Ser Lys Asn Asp Leu Ala Val Ala Tyr Ile
      100      105      110
Leu Asn Ile Pro Asp Arg Gly Leu Gly Arg Glu Ala Phe Thr Asp Leu
      115      120      125
Lys His Ala Ala Arg Glu Lys Gln Met Ser Ile Phe Leu Val Ala Thr
      130      135      140
Ser Phe Ile Arg Thr Ile Glu Leu Gly Gly Lys Gly Tyr Ala Pro Pro
145      150      155      160
Pro Ser Asp Pro Leu Arg Thr His Val Lys Gly Leu Ser Asn Phe Ile
      165      170      175
Asn Phe Ile Asp Lys Leu Asp Glu Ile Leu Gly Glu Ile Pro Asn Pro
      180      185      190
Ser Ile Ala Gly Gly Gln Ile Leu Ser Val Ile Lys Met Gln Leu Ile
      195      200      205
Lys Gly Gln Asn Ser Arg Asp Pro Phe Cys Lys Ala Ile Glu Glu Val
      210      215      220
Ala Gln Asp Leu Asp Leu Arg Ile Lys Asn Ile Ile Asn Ser Gln Glu
225      230      235      240
Gly Val Val Ala Leu Ser Thr Thr Asp Ile Ser Pro Ala Arg Pro Lys
      245      250      255
Ser His Ala Ile Asn His Gly Thr Ala Tyr Cys Gly Arg Asp Thr Val
      260      265      270
Lys Ala Leu Leu Val Leu Leu Asp Glu Glu Ala Ala Asn Ala Pro Thr
      275      280      285
Lys Asn Lys Ala Glu Leu Leu Tyr Asp Glu Glu Asp Thr Ile His His
      290      295      300
His Gly Thr Ser Ile Leu Thr Leu Phe Arg Ser Pro Thr Gln Val Asn
305      310      315      320

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Met	Arg	Arg	Pro	Ser	Val	Arg	Ala	Ala	Gly	Leu	Val	Leu	Cys	Thr	Leu
1				5					10					15	
Cys	Tyr	Leu	Leu	Val	Gly	Ala	Ala	Val	Phe	Asp	Ala	Leu	Glu	Ser	Glu
		20						25					30		
Ala	Glu	Ser	Gly	Arg	Gln	Arg	Leu	Leu	Val	Gln	Lys	Arg	Gly	Ala	Leu
		35					40					45			
Arg	Arg	Lys	Phe	Gly	Phe	Ser	Ala	Glu	Asp	Tyr	Arg	Glu	Leu	Glu	Arg
		50				55					60				
Leu	Ala	Leu	Gln	Ala	Glu	Pro	His	Arg	Ala	Gly	Arg	Gln	Trp	Lys	Phe
65					70					75					80
Pro	Gly	Ser	Phe	Tyr	Phe	Ala	Ile	Thr	Val	Ile	Thr	Thr	Ile	Gly	Tyr

85 90 95
 Gly His Ala Ala Pro Gly Thr Asp Ser Gly Lys Val Phe Cys Met Phe
 100 105 110
 Tyr Ala Leu Leu Gly Ile Pro Leu Thr Leu Val Thr Phe Gln Ser Leu
 115 120 125
 Gly Glu Arg Leu Asn Ala Val Val Arg Arg Leu Leu Leu Ala Ala Lys
 130 135 140
 Cys Cys Leu Gly Leu Arg Trp Thr Cys Val Ser Thr Glu Asn Leu Val
 145 150 155 160
 Val Ala Gly Leu Leu Ala Cys Ala Ala Thr Leu Ala Leu Gly Ala Val
 165 170 175
 Ala Phe Ser His Phe Glu Gly Trp Thr Phe Phe His Ala Tyr Tyr Tyr
 180 185 190
 Cys Phe Ile Thr Leu Thr Thr Ile Gly Phe Gly Asp Phe Val Ala Leu
 195 200 205
 Gln Ser Gly Glu Ala Leu Gln Arg Lys Leu Pro Tyr Val Ala Phe Ser
 210 215 220
 Phe Leu Tyr Ile Leu Leu Gly Leu Thr Val Ile Gly Ala Phe Leu Asn
 225 230 235 240
 Leu Val Val Leu Arg Phe Leu Val Ala Ser Ala Asp Trp Pro Glu Arg
 245 250 255
 Ala Ala Arg Pro Pro Ser Pro Arg Pro Pro Gly Ala Pro Glu Ser Arg
 260 265 270
 Gly Leu Trp Leu Pro Arg Arg Pro Ala Arg Ser Val Gly Ser Ala Ser
 275 280 285
 Val Phe Cys His Val His Lys Leu Glu Arg Cys Ala Arg Asp Asn Leu
 290 295 300
 Gly Phe Ser Pro Pro Ser Ser Pro Gly Val Val Arg Gly Gly Gln Ala
 305 310 315 320
 Pro Arg Pro Gly Ala Arg Trp Lys Ser Ile
 325 330

<210> 307

<211> 741

<212> PRT

<213> Homo sapiens

<400> 307

Met Glu Ser Arg Asp His Asn Asn Pro Gln Glu Gly Pro Thr Ser Ser
 1 5 10 15
 Ser Gly Arg Arg Ala Ala Val Glu Asp Asn His Leu Leu Ile Lys Ala
 20 25 30
 Val Gln Asn Glu Asp Val Asp Leu Val Gln Gln Leu Leu Glu Gly Gly
 35 40 45
 Ala Asn Val Asn Phe Gln Glu Glu Gly Gly Trp Thr Pro Leu His
 50 55 60
 Asn Ala Val Gln Met Ser Arg Glu Asp Ile Val Glu Leu Leu Leu Arg
 65 70 75 80
 His Gly Ala Asp Pro Val Leu Arg Lys Lys Asn Gly Ala Thr Pro Phe
 85 90 95
 Ile Leu Ala Ala Ile Ala Gly Ser Val Lys Leu Leu Lys Leu Phe Leu
 100 105 110
 Ser Lys Gly Ala Asp Val Asn Glu Cys Asp Phe Tyr Gly Phe Thr Ala
 115 120 125
 Phe Met Glu Ala Ala Val Tyr Gly Lys Val Lys Ala Leu Lys Phe Leu
 130 135 140
 Tyr Lys Arg Gly Ala Asn Val Asn Leu Arg Arg Lys Thr Lys Glu Asp
 145 150 155 160
 Gln Glu Arg Leu Arg Lys Gly Gly Ala Thr Ala Leu Met Asp Ala Ala
 165 170 175
 Glu Lys Gly His Val Glu Val Leu Lys Ile Leu Leu Asp Glu Met Gly
 180 185 190
 Ala Asp Val Asn Ala Cys Asp Asn Met Gly Arg Asn Ala Leu Ile His
 195 200 205
 Ala Leu Leu Ser Ser Asp Asp Ser Asp Val Glu Ala Ile Thr His Leu
 210 215 220
 Leu Leu Asp His Gly Ala Asp Val Asn Val Arg Gly Glu Arg Gly Lys
 225 230 235 240
 Thr Pro Leu Ile Leu Ala Val Glu Lys Lys His Leu Gly Leu Val Gln
 245 250 255

Arg Leu Leu Glu Gln Glu His Ile Glu Ile Asn Asp Thr Asp Ser Asp
 260 265 270
 Gly Lys Thr Ala Leu Leu Leu Ala Val Glu Leu Lys Leu Lys Lys Ile
 275 280 285
 Ala Glu Leu Leu Cys Lys Arg Gly Ala Ser Thr Asp Cys Gly Asp Leu
 290 295 300
 Val Met Thr Ala Arg Arg Asn Tyr Asp His Ser Leu Val Lys Val Leu
 305 310 315 320
 Leu Ser His Gly Ala Lys Glu Asp Phe His Pro Pro Ala Glu Asp Trp
 325 330 335
 Lys Pro Gln Ser Ser His Trp Gly Ala Ala Leu Lys Asp Leu His Arg
 340 345 350
 Ile Tyr Arg Pro Met Ile Gly Lys Leu Lys Phe Phe Ile Asp Glu Lys
 355 360 365
 Tyr Lys Ile Ala Asp Thr Ser Glu Gly Gly Ile Tyr Leu Gly Phe Tyr
 370 375 380
 Glu Lys Gln Glu Val Ala Val Lys Thr Phe Cys Glu Gly Ser Pro Arg
 385 390 395 400
 Ala Gln Arg Glu Val Ser Cys Leu Gln Ser Ser Arg Glu Asn Ser His
 405 410 415
 Leu Val Thr Phe Tyr Gly Ser Glu Ser His Arg Gly His Leu Phe Val
 420 425 430
 Cys Val Thr Leu Cys Glu Gln Thr Leu Glu Ala Cys Leu Asp Val His
 435 440 445
 Arg Gly Glu Asp Val Glu Asn Glu Glu Asp Glu Phe Ala Arg Asn Val
 450 455 460
 Leu Ser Ser Ile Phe Lys Ala Val Gln Glu Leu His Leu Ser Cys Gly
 465 470 475 480
 Tyr Thr His Gln Asp Leu Gln Pro Gln Asn Ile Leu Ile Asp Ser Lys
 485 490 495
 Lys Ala Ala His Leu Ala Asp Phe Asp Lys Ser Ile Lys Trp Ala Gly
 500 505 510
 Asp Pro Gln Glu Val Lys Arg Asp Leu Glu Asp Leu Gly Arg Leu Val
 515 520 525
 Leu Tyr Val Val Lys Lys Gly Ser Ile Ser Phe Glu Asp Leu Lys Ala
 530 535 540
 Gln Ser Asn Glu Glu Val Val Gln Leu Ser Pro Asp Glu Glu Thr Lys
 545 550 555 560
 Asp Leu Ile His Arg Leu Phe His Pro Gly Glu His Val Arg Asp Cys
 565 570 575
 Leu Ser Asp Leu Leu Gly His Pro Phe Phe Trp Thr Trp Glu Ser Arg
 580 585 590
 Tyr Arg Thr Leu Arg Asn Val Gly Asn Glu Ser Asp Ile Lys Thr Arg
 595 600 605
 Lys Ser Glu Ser Glu Ile Leu Arg Leu Leu Gln Pro Gly Pro Ser Glu
 610 615 620
 His Ser Lys Ser Phe Asp Lys Trp Thr Thr Lys Ile Asn Glu Cys Val
 625 630 635 640
 Met Lys Lys Met Asn Lys Phe Tyr Glu Lys Arg Gly Asn Phe Tyr Gln
 645 650 655
 Asn Thr Val Gly Asp Leu Leu Lys Phe Ile Arg Asn Leu Gly Glu His
 660 665 670
 Ile Asp Glu Glu Lys His Lys Lys Met Lys Leu Lys Ile Gly Asp Pro
 675 680 685
 Ser Leu Tyr Phe Gln Lys Thr Phe Pro Asp Leu Val Ile Tyr Val Tyr
 690 695 700
 Thr Lys Leu Gln Asn Thr Glu Tyr Arg Lys His Phe Pro Gln Thr His
 705 710 715 720
 Ser Pro Asn Lys Pro Gln Cys Asp Gly Ala Gly Gly Ala Ser Gly Leu
 725 730 735
 Ala Ser Pro Gly Cys
 740

<210> 308

<211> 651

<212> PRT

<213> Homo sapiens

<400> 308

Met Ser Gly Val Arg Ala Val Arg Ile Ser Ile Glu Ser Ala Cys Glu

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1      5      10      15
Lys Gln Val His Glu Val Gly Leu Asp Gly Thr Glu Thr Tyr Leu Pro
20
Pro Leu Ser Met Ser Gln Asn Leu Ala Arg Leu Ala Gln Arg Ile Asp
35
Phe Ser Gln Gly Ser Gly Ser Glu Glu Glu Glu Ala Ala Gly Thr Glu
50
Gly Asp Ala Gln Glu Trp Pro Gly Ala Gly Ser Ser Ala Asp Gln Asp
65
Asp Glu Glu Gly Val Val Lys Phe Gln Pro Ser Leu Trp Pro Trp Asp
85
Ser Val Arg Asn Asn Leu Arg Ser Ala Leu Thr Glu Met Cys Val Leu
100
Tyr Asp Val Leu Ser Ile Val Arg Asp Lys Lys Phe Met Thr Leu Asp
115
Pro Val Ser Gln Asp Ala Leu Pro Pro Lys Gln Asn Pro Gln Thr Leu
130
Gln Leu Ile Ser Lys Lys Lys Ser Leu Ala Gly Ala Ala Gln Ile Leu
145
Leu Lys Gly Ala Glu Arg Leu Thr Lys Ser Val Thr Glu Asn Gln Glu
165
Asn Lys Leu Gln Arg Asp Phe Asn Ser Glu Leu Leu Arg Leu Arg Gln
180
His Trp Lys Leu Arg Lys Val Gly Asp Lys Ile Leu Gly Asp Leu Ser
195
Tyr Arg Ser Ala Gly Ser Leu Phe Pro His His Gly Thr Phe Glu Val
210
Ile Lys Asn Thr Asp Leu Asp Leu Asp Lys Lys Ile Pro Glu Asp Tyr
225
Cys Pro Leu Asp Val Gln Ile Pro Ser Asp Leu Glu Gly Ser Ala Tyr
245
Ile Lys Val Ser Ile Gln Lys Gln Ala Pro Asp Ile Gly Asp Leu Gly
260
Thr Val Asn Leu Phe Lys Arg Pro Leu Pro Lys Ser Lys Pro Gly Ser
275
Pro His Trp Gln Thr Lys Leu Glu Ala Ala Gln Asn Val Leu Leu Cys
290
Lys Glu Ile Phe Ala Gln Leu Ser Arg Glu Ala Val Gln Ile Lys Ser
305
Gln Val Pro His Ile Val Val Lys Asn Gln Ile Ile Ser Gln Pro Phe
325
Pro Ser Leu Gln Leu Ser Ile Ser Leu Cys His Ser Ser Asn Asp Lys
340
Lys Ser Gln Lys Phe Ala Thr Glu Lys Gln Cys Pro Glu Asp His Leu
355
Tyr Val Leu Glu His Asn Leu His Leu Leu Ile Arg Glu Phe His Lys
370
Gln Thr Leu Ser Ser Ile Met Met Pro His Pro Ala Ser Ala Pro Phe
385
Gly His Lys Arg Met Arg Leu Ser Gly Pro Gln Ala Phe Asp Lys Asn
405
Glu Ile Asn Ser Leu Gln Ser Ser Glu Gly Leu Leu Glu Lys Ile Ile
420
Lys Gln Ala Lys His Ile Phe Leu Arg Ser Arg Ala Ala Ala Thr Ile
435
Asp Ser Leu Ala Ser Arg Ile Glu Asp Pro Gln Ile Gln Ala His Trp
450
Ser Asn Ile Asn Asp Val Tyr Glu Ser Ser Val Lys Val Leu Ile Thr
465
Ser Gln Gly Tyr Glu Gln Ile Cys Lys Ser Ile Gln Leu Gln Leu Asn
485
Ile Gly Val Glu Gln Ile Arg Val Val His Arg Asp Gly Arg Val Ile
500
Thr Leu Ser Tyr Gln Glu Gln Glu Leu Gln Asp Phe Leu Leu Ser Gln
515
Met Ser Gln His Gln Val His Ala Val Gln Gln Leu Ala Lys Val Met
530
Gly Trp Gln Val Leu Ser Phe Ser Asn His Val Gly Leu Gly Pro Ile
545
550
555
560

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Glu Ser Ile Gly Asn Ala Ser Ala Ile Thr Val Ala Ser Pro Ser Gly
 565 570 575
 Asp Tyr Ala Ile Ser Val Arg Asn Gly Pro Glu Ser Gly Ser Lys Ile
 580 585 590
 Met Val Gln Phe Pro Arg Asn Gln Cys Lys Asp Leu Pro Lys Ser Asp
 595 600 605
 Val Leu Gln Asp Asn Lys Trp Ser His Leu Arg Gly Pro Phe Lys Glu
 610 615 620
 Val Gln Trp Asn Lys Met Glu Gly Arg Asn Phe Val Tyr Lys Met Glu
 625 630 635 640
 Leu Leu Met Ser Ala Leu Ser Pro Cys Leu Leu
 645 650

<210> 309
 <211> 1496
 <212> PRT
 <213> Homo sapiens
 <400> 309

Met Met Ala Asn Trp Ala Glu Ala Arg Pro Leu Leu Ile Leu Ile Val
 1 5 10 15
 Leu Leu Gly Gln Phe Val Ser Ile Lys Ala Gln Glu Glu Asp Glu Asp
 20 25 30
 Glu Gly Tyr Gly Glu Glu Ile Ala Cys Thr Gln Asn Gly Gln Met Tyr
 35 40 45
 Leu Asn Arg Asp Ile Trp Lys Pro Ala Pro Cys Gln Ile Cys Val Cys
 50 55 60
 Asp Asn Gly Ala Ile Leu Cys Asp Lys Ile Glu Cys Gln Asp Val Leu
 65 70 75 80
 Asp Cys Ala Asp Pro Val Thr Pro Pro Gly Glu Cys Cys Pro Val Cys
 85 90 95
 Ser Gln Thr Pro Gly Gly Gly Asn Thr Asn Phe Gly Arg Gly Arg Lys
 100 105 110
 Gly Gln Lys Gly Glu Pro Gly Leu Val Pro Val Val Thr Gly Ile Arg
 115 120 125
 Gly Arg Pro Gly Pro Ala Gly Pro Pro Gly Ser Gln Gly Pro Arg Gly
 130 135 140
 Glu Arg Gly Pro Lys Gly Arg Pro Gly Pro Arg Gly Pro Gln Gly Ile
 145 150 155 160
 Asp Gly Glu Pro Gly Val Pro Gly Gln Pro Gly Ala Pro Gly Pro Pro
 165 170 175
 Gly His Pro Ser His Pro Gly Pro Asp Gly Leu Ser Arg Pro Phe Ser
 180 185 190
 Ala Gln Met Ala Gly Leu Asp Glu Lys Ser Gly Leu Gly Ser Gln Val
 195 200 205
 Gly Leu Met Pro Gly Ser Val Gly Pro Val Gly Pro Arg Gly Pro Gln
 210 215 220
 Gly Leu Gln Gly Gln Gln Gly Gly Ala Gly Pro Thr Gly Pro Pro Gly
 225 230 235 240
 Glu Pro Gly Asp Pro Gly Pro Met Gly Pro Ile Gly Ser Arg Gly Pro
 245 250 255
 Glu Gly Pro Pro Gly Lys Pro Gly Glu Asp Gly Glu Pro Gly Arg Asn
 260 265 270
 Gly Asn Pro Gly Glu Val Gly Phe Ala Gly Ser Pro Gly Ala Arg Gly
 275 280 285
 Phe Pro Gly Ala Pro Gly Leu Pro Gly Leu Lys Gly His Arg Gly His
 290 295 300
 Lys Gly Leu Glu Gly Pro Lys Gly Glu Val Gly Ala Pro Gly Ser Lys
 305 310 315 320
 Gly Glu Ala Gly Pro Thr Gly Pro Met Gly Ala Met Gly Pro Leu Gly
 325 330 335
 Pro Arg Gly Met Pro Gly Glu Arg Gly Arg Leu Gly Pro Gln Gly Ala
 340 345 350
 Pro Gly Gln Arg Gly Ala His Gly Met Pro Gly Lys Pro Gly Pro Met
 355 360 365
 Gly Pro Leu Gly Ile Pro Gly Ser Ser Gly Phe Pro Gly Asn Pro Gly
 370 375 380
 Met Lys Gly Glu Ala Gly Pro Thr Gly Ala Arg Gly Pro Glu Gly Pro
 385 390 395 400
 Gln Gly Gln Arg Gly Glu Thr Gly Pro Pro Gly Pro Val Gly Ser Pro

								405								410								415															
Gly	Leu	Pro	Gly	Ala	Ile	Gly	Thr	Asp	Gly	Thr	Pro	Gly	Pro	Lys	Gly	Pro	Thr	Asp	Gly	Thr	Pro	Gly	Pro	Lys	Gly	Pro	Thr	Asp	Gly	Thr	Pro	Gly	Pro	Lys	Gly				
			420							425							430							435															
Pro	Thr	Gly	Ser	Pro	Gly	Thr	Ser	Gly	Pro	Pro	Gly	Ser	Ala	Gly	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Ser	Ala	Gly	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Ser	Ala	Gly	Pro				
			435							440							445							450															
Pro	Gly	Ser	Pro	Gly	Pro	Gln	Gly	Ser	Thr	Gly	Pro	Gln	Gly	Asn	Ser	Thr	Gly	Pro	Gln	Gly	Pro	Gln	Gly	Asn	Ser	Thr	Gly	Pro	Pro	Gln	Gly	Asn	Ser	Thr					
			450							455							460							465															
Gly	Leu	Pro	Gly	Asp	Pro	Gly	Phe	Lys	Gly	Glu	Ala	Gly	Pro	Lys	Gly	Glu	Ala	Gly	Pro	Lys	Gly	Pro	Lys	Gly	Pro	Thr	Ser	Gly	Pro	Pro	Lys	Gly	Pro	Thr					
			470							475							480							485															
Glu	Pro	Gly	Pro	His	Gly	Ile	Gln	Gly	Pro	Ile	Gly	Pro	Ile	Gly	Pro	Ile	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Glu	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Glu	Pro	Thr					
			485							490							495							500															
Glu	Gly	Lys	Arg	Gly	Pro	Arg	Gly	Asp	Pro	Gly	Thr	Leu	Gly	Pro	Thr	Leu	Gly	Pro	Thr	Leu	Gly	Pro	Pro	Gly	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Pro	Thr	Ser					
			500							505							510							515															
Gly	Pro	Val	Gly	Glu	Arg	Gly	Ala	Pro	Gly	Asn	Arg	Gly	Phe	Pro	Gly	Phe	Pro	Gly	Pro	Gly	Phe	Pro	Gly	Pro	Gly	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Pro	Thr					
			515							520							525							530															
Ser	Asp	Gly	Leu	Pro	Gly	Pro	Lys	Gly	Ala	Gln	Gly	Glu	Arg	Gly	Pro	Gly	Glu	Arg	Gly	Pro	Gly	Arg	Gly	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Pro	Thr	Ser						
			530							535							540							545															
Val	Gly	Ser	Ser	Gly	Pro	Lys	Gly	Ser	Gln	Gly	Asp	Pro	Gly	Arg	Pro	Gly	Arg	Pro	Gly	Arg	Pro	Gly	Arg	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Pro	Thr	Ser						
			545							550							555							560															
Gly	Glu	Pro	Gly	Leu	Pro	Gly	Ala	Arg	Gly	Leu	Thr	Gly	Asn	Pro	Gly	Asn	Pro	Gly	Asn	Pro	Gly	Asn	Pro	Gly	Asn	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Asn	Pro					
			565							570							575							580															
Val	Gln	Gly	Pro	Glu	Gly	Lys	Leu	Gly	Pro	Leu	Gly	Ala	Pro	Gly	Ala	Pro	Gly	Ala	Pro	Gly	Ala	Pro	Gly	Glu	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Glu	Pro	Thr					
			580							585							590							595															
Asp	Gly	Arg	Pro	Gly	Pro	Pro	Gly	Ser	Ile	Gly	Ile	Lys	Gly	Pro	Gly	Ile	Lys	Gly	Pro	Gly	Ile	Lys	Gly	Gln	Pro	Thr	Ser	Gly	Pro	Pro	Gly	Gln	Pro	Thr					
			595							600							605							610															

Gly Pro Gly Asp Lys Gly Asp Pro Gly Glu Asp Gly Gln Pro Gly Pro
 965 970 975
 Asp Gly Pro Pro Gly Pro Ala Gly Thr Thr Gly Gln Arg Gly Ile Val
 980 985 990
 Gly Met Pro Gly Gln Arg Gly Glu Arg Gly Met Pro Gly Leu Pro Gly
 995 1000 1005
 Pro Ala Gly Thr Pro Gly Lys Val Gly Pro Thr Gly Ala Thr Gly
 1010 1015 1020
 Asp Lys Gly Pro Pro Gly Pro Val Gly Pro Pro Gly Ser Asn Gly
 1025 1030 1035
 Pro Val Gly Glu Pro Gly Pro Glu Gly Pro Ala Gly Asn Asp Gly
 1040 1045 1050
 Thr Pro Gly Arg Asp Gly Ala Val Gly Glu Arg Gly Asp Arg Gly
 1055 1060 1065
 Asp Pro Gly Pro Ala Gly Leu Pro Gly Ser Gln Gly Ala Pro Gly
 1070 1075 1080
 Thr Pro Gly Pro Val Gly Ala Pro Gly Asp Ala Gly Gln Arg Gly
 1085 1090 1095
 Asp Pro Gly Ser Arg Gly Gly Ile Gly His Leu Gly Arg Ala Gly
 1100 1105 1110
 Lys Arg Gly Leu Pro Gly Pro Gln Gly Pro Arg Gly Asp Lys Gly
 1115 1120 1125
 Asp His Gly Asp Arg Gly Asp Arg Gly Gln Lys Gly His Arg Gly
 1130 1135 1140
 Phe Thr Gly Leu Gln Gly Leu Pro Gly Pro Pro Gly Pro Asn Gly
 1145 1150 1155
 Glu Gln Gly Ser Ala Gly Ile Pro Gly Pro Phe Gly Pro Arg Gly
 1160 1165 1170
 Pro Pro Gly Pro Val Gly Pro Ser Gly Lys Glu Gly Asn Pro Gly
 1175 1180 1185
 Pro Leu Gly Pro Leu Gly Pro Pro Gly Val Arg Gly Ser Val Gly
 1190 1195 1200
 Glu Ala Gly Pro Glu Gly Pro Pro Gly Glu Pro Gly Pro Pro Gly
 1205 1210 1215
 Pro Pro Gly Pro Pro Gly His Leu Thr Ala Ala Leu Gly Asp Ile
 1220 1225 1230
 Met Gly His Tyr Asp Glu Ser Met Pro Asp Pro Leu Pro Glu Phe
 1235 1240 1245
 Thr Glu Asp Gln Ala Ala Pro Asp Asp Lys Asn Lys Thr Asp Pro
 1250 1255 1260
 Gly Val His Ala Thr Leu Lys Ser Leu Ser Ser Gln Ile Glu Thr
 1265 1270 1275
 Met Arg Ser Pro Asp Gly Ser Lys Lys His Pro Ala Arg Thr Cys
 1280 1285 1290
 Asp Asp Leu Lys Leu Cys His Ser Ala Lys Gln Ser Gly Glu Tyr
 1295 1300 1305
 Trp Ile Asp Pro Asn Gln Gly Ser Val Glu Asp Ala Ile Lys Val
 1310 1315 1320
 Tyr Cys Asn Met Glu Thr Gly Glu Thr Cys Ile Ser Ala Asn Pro
 1325 1330 1335
 Ser Ser Val Pro Arg Lys Thr Trp Trp Ala Ser Lys Ser Pro Asp
 1340 1345 1350
 Asn Lys Pro Val Trp Tyr Gly Leu Asp Met Asn Arg Gly Ser Gln
 1355 1360 1365
 Phe Ala Tyr Gly Asp His Gln Ser Pro Asn Thr Ala Ile Thr Gln
 1370 1375 1380
 Met Thr Phe Leu Arg Leu Leu Ser Lys Glu Ala Ser Gln Asn Ile
 1385 1390 1395
 Thr Tyr Ile Cys Lys Asn Ser Val Gly Tyr Met Asp Asp Gln Ala
 1400 1405 1410
 Lys Asn Leu Lys Lys Ala Val Val Leu Lys Gly Ala Asn Asp Leu
 1415 1420 1425
 Asp Ile Lys Ala Glu Gly Asn Ile Arg Phe Arg Tyr Ile Val Leu
 1430 1435 1440
 Gln Asp Thr Cys Ser Lys Arg Asn Gly Asn Val Gly Lys Thr Val
 1445 1450 1455
 Phe Glu Tyr Arg Thr Gln Asn Val Ala Arg Leu Pro Ile Ile Asp
 1460 1465 1470
 Leu Ala Pro Val Asp Val Gly Gly Thr Asp Gln Glu Phe Gly Val

1475										1480										1485									
Glu Ile Gly Pro Val Cys Phe Val																													
1490										1495																			
<210> 310																													
<211> 52																													
<212> PRT																													
<213> Homo sapiens																													
<400> 310																													
Met	Lys	Arg	Lys	Thr	Lys	Thr	Pro	Ser	Glu	Gly	Gly	Gln	Val	Leu	Ala														
1			5						10					15															
Glu	Gln	Arg	Gly	Ser	Arg	Ser	Cys	Gln	Arg	Leu	Thr	Ala	Arg	Lys	Ala														
			20					25					30																
Leu	Pro	Ile	Leu	Val	Phe	Thr	Ile	Glu	Thr	Ala	Thr	Ala	Cys	Thr	Asp														
		35					40					45																	
His	Phe	Gly	Ser																										
	50																												
<210> 311																													
<211> 330																													
<212> PRT																													
<213> Homo sapiens																													
<400> 311																													
Met	Ala	Glu	Glu	Asp	Leu	Ala	Pro	Gly	Lys	Ser	Ser	Val	Ala	Val	Asn														
1			5						10					15															
Asn	Cys	Ile	Arg	Gln	Leu	Ser	Tyr	Cys	Lys	Asn	Asp	Ile	Arg	Asp	Thr														
			20					25					30																
Val	Gly	Ile	Trp	Gly	Glu	Gly	Lys	Asp	Met	Tyr	Leu	Ile	Leu	Glu	Asn														
		35					40					45																	
Asp	Met	Leu	Ser	Leu	Val	Asp	Pro	Met	Asp	Arg	Ser	Val	Leu	His	Ser														
		50				55					60																		
Gln	Pro	Ile	Val	Ser	Ile	Arg	Val	Trp	Gly	Val	Gly	Arg	Asp	Asn	Gly														
					70				75					80															
Arg	Asp	Phe	Ala	Tyr	Val	Ala	Arg	Asp	Lys	Asp	Thr	Arg	Ile	Leu	Lys														
			85						90					95															
Cys	His	Val	Phe	Arg	Cys	Asp	Thr	Pro	Ala	Lys	Ala	Ile	Ala	Thr	Ser														
			100					105					110																
Leu	His	Glu	Ile	Cys	Ser	Lys	Ile	Met	Ala	Glu	Arg	Lys	Asn	Ala	Lys														
		115					120					125																	
Ala	Leu	Ala	Cys	Ser	Ser	Leu	Gln	Glu	Arg	Ala	Asn	Val	Asn	Leu	Asp														
		130				135					140																		
Val	Pro	Leu	Gln	Val	Asp	Phe	Pro	Thr	Pro	Lys	Thr	Glu	Leu	Val	Gln														
					150						155				160														
Lys	Phe	His	Val	Gln	Tyr	Leu	Gly	Met	Leu	Pro	Val	Asp	Lys	Pro	Val														
			165						170					175															
Gly	Met	Asp	Ile	Leu	Asn	Ser	Ala	Ile	Glu	Asn	Leu	Met	Thr	Ser	Ser														
			180					185					190																
Asn	Lys	Glu	Asp	Trp	Leu	Ser	Val	Asn	Met	Asn	Val	Ala	Asp	Ala	Thr														
		195					200																						

<213> Homo sapiens

<400> 312

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Met Ser Arg His Ser Arg Leu Gln Arg Gln Val Leu Ser Leu Tyr Arg
1          5          10          15
Asp Leu Leu Arg Ala Gly Arg Gly Lys Pro Gly Ala Glu Ala Arg Val
20          25          30
Arg Ala Glu Phe Arg Gln His Ala Gly Leu Pro Arg Ser Asp Val Leu
35          40          45
Arg Ile Glu Tyr Leu Tyr Arg Arg Gly Arg Arg Gln Leu Gln Leu Leu
50          55          60
Arg Ser Gly His Ala Thr Ala Met Gly Ala Phe Val Arg Pro Arg Ala
65          70          75          80
Pro Thr Gly Glu Pro Gly Gly Val Gly Cys Gln Pro Asp Asp Gly Asp
85          90          95
Ser Pro Arg Asn Pro His Asp Ser Thr Gly Ala Pro Glu Thr Arg Pro
100         105         110
Asp Gly Arg
115

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<210> 313

<211> 321

<212> PRT

<213> Homo sapiens

<400> 313

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Met Lys Glu Asp Cys Leu Pro Ser Ser His Val Pro Ile Ser Asp Ser
1          5          10          15
Lys Ser Ile Gln Lys Ser Glu Leu Leu Gly Leu Leu Lys Thr Tyr Asn
20          25          30
Cys Tyr His Glu Gly Lys Ser Phe Gln Leu Arg His Arg Glu Glu Glu
35          40          45
Gly Thr Leu Ile Ile Glu Gly Leu Leu Asn Ile Ala Trp Gly Leu Arg
50          55          60
Arg Pro Ile Arg Leu Gln Met Gln Asp Asp Arg Glu Gln Val His Leu
65          70          75          80
Pro Ser Thr Ser Trp Met Pro Arg Arg Pro Ser Cys Pro Leu Lys Glu
85          90          95
Pro Ser Pro Gln Asn Gly Asn Ile Thr Ala Gln Gly Pro Ser Ile Gln
100         105         110
Pro Val His Lys Ala Glu Ser Ser Thr Asp Ser Ser Gly Pro Leu Glu
115         120         125
Glu Ala Glu Glu Ala Pro Gln Leu Met Arg Thr Lys Ser Asp Ala Ser
130         135         140
Cys Met Ser Gln Arg Arg Pro Lys Cys Arg Ala Pro Gly Glu Ala Gln
145         150         155         160
Arg Ile Arg Arg His Arg Phe Ser Ile Asn Gly His Phe Tyr Asn His
165         170         175
Lys Thr Ser Val Phe Thr Pro Ala Tyr Gly Ser Val Thr Asn Val Arg
180         185         190
Val Asn Ser Thr Met Thr Thr Leu Gln Val Leu Thr Leu Leu Asn
195         200         205
Lys Phe Arg Val Glu Asp Gly Pro Ser Glu Phe Ala Leu Tyr Ile Val
210         215         220
His Glu Ser Gly Glu Arg Thr Lys Leu Lys Asp Cys Glu Tyr Pro Leu
225         230         235         240
Ile Ser Arg Ile Leu His Gly Pro Cys Glu Lys Ile Ala Arg Ile Phe
245         250         255
Leu Met Glu Ala Asp Leu Gly Val Glu Val Pro His Glu Val Ala Gln
260         265         270
Tyr Ile Lys Phe Glu Met Pro Val Leu Asp Ser Phe Val Glu Lys Leu
275         280         285
Lys Glu Glu Glu Glu Arg Glu Ile Ile Lys Leu Thr Met Lys Phe Gln
290         295         300
Ala Leu Arg Leu Thr Met Leu Gln Arg Leu Glu Gln Leu Val Glu Ala
305         310         315         320
Lys

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<210> 314

<211> 490

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<212> PRT
<213> Homo sapiens
<400> 314
Met Trp Pro Gln Asp Pro Ser Arg Lys Glu Val Leu Arg Phe Ala Val
1 5 10 15
Ser Cys Arg Ile Leu Thr Leu Met Leu Gln Ala Leu Phe Asn Ala Ile
20 25 30
Ile Pro Asp His His Ala Glu Ala Phe Ser Pro Pro Arg Leu Ala Pro
35 40 45
Ser Gly Phe Val Asp Gln Leu Val Glu Gly Leu Leu Gly Gly Leu Ser
50 55 60
His Trp Asp Ala Glu His Phe Leu Phe Ile Ala Glu His Gly Tyr Leu
65 70 75 80
Tyr Glu His Asn Phe Ala Phe Phe Pro Gly Phe Pro Leu Ala Leu Leu
85 90 95
Val Gly Thr Glu Leu Leu Arg Pro Leu Arg Gly Leu Leu Ser Leu Arg
100 105 110
Ser Cys Leu Leu Ile Ser Val Ala Ser Leu Asn Phe Leu Phe Phe Met
115 120 125
Leu Ala Ala Val Ala Leu His Asp Leu Gly Cys Leu Val Leu His Cys
130 135 140
Pro His Gln Ser Phe Tyr Ala Ala Leu Leu Phe Cys Leu Ser Pro Ala
145 150 155 160
Asn Val Phe Leu Ala Ala Gly Tyr Ser Glu Ala Leu Phe Ala Leu Leu
165 170 175
Thr Phe Ser Ala Met Gly Gln Leu Glu Arg Gly Arg Val Trp Thr Ser
180 185 190
Val Leu Leu Phe Ala Phe Ala Thr Gly Val Arg Ser Asn Gly Leu Val
195 200 205
Ser Val Gly Phe Leu Met His Ser Gln Cys Gln Gly Phe Phe Ser Ser
210 215 220
Leu Thr Met Leu Asn Pro Leu Arg Gln Leu Phe Lys Leu Met Ala Ser
225 230 235 240
Leu Phe Leu Ser Val Phe Thr Leu Gly Leu Pro Phe Ala Leu Phe Gln
245 250 255
Tyr Tyr Ala Tyr Thr Gln Phe Cys Leu Pro Gly Ser Ala Arg Pro Ile
260 265 270
Pro Glu Pro Leu Val Gln Leu Ala Val Asp Lys Gly Tyr Arg Ile Ala
275 280 285
Glu Gly Asn Glu Pro Pro Trp Cys Phe Trp Asp Val Pro Leu Ile Tyr
290 295 300
Ser Tyr Ile Gln Asp Val Tyr Trp Asn Val Gly Phe Leu Lys Tyr Tyr
305 310 315 320
Glu Leu Lys Gln Val Pro Asn Phe Leu Leu Ala Ala Pro Val Ala Ile
325 330 335
Leu Val Ala Trp Ala Thr Trp Thr Tyr Val Thr Thr His Pro Trp Leu
340 345 350
Cys Leu Thr Leu Gly Leu Gln Arg Ser Lys Asn Asn Lys Thr Leu Glu
355 360 365
Lys Pro Asp Leu Gly Phe Leu Ser Pro Gln Val Phe Val Tyr Val Val
370 375 380
His Ala Ala Val Leu Leu Leu Phe Gly Gly Leu Cys Met His Val Gln
385 390 395 400
Val Leu Thr Arg Phe Leu Gly Ser Ser Thr Pro Ile Met Tyr Trp Phe
405 410 415
Pro Ala His Leu Leu Gln Asp Gln Glu Pro Leu Leu Arg Ser Leu Lys
420 425 430
Thr Val Pro Trp Lys Pro Leu Ala Glu Asp Ser Pro Pro Gly Gln Lys
435 440 445
Val Pro Arg Asn Pro Ile Met Gly Leu Leu Tyr His Trp Lys Thr Cys
450 455 460
Ser Pro Val Thr Arg Tyr Ile Leu Gly Tyr Phe Leu Thr Tyr Trp Leu
465 470 475 480
Leu Gly Leu Leu Leu His Cys Asn Phe Leu
485 490

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<210> 315
<211> 688
<212> PRT

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<213> Homo sapiens

<400> 315

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Met Ser Ser Arg Thr Val Leu Ala Pro Gly Asn Asp Arg Asn Ser Asp
1      5      10
Thr His Gly Thr Leu Gly Ser Gly Arg Ser Ser Asp Lys Gly Pro Ser
20      25      30
Trp Ser Ser Arg Ser Leu Gly Ala Arg Cys Arg Asn Ser Ile Ala Ser
35      40      45
Cys Pro Glu Glu Gln Pro His Val Gly Asn Tyr Arg Leu Leu Arg Thr
50      55      60
Ile Gly Lys Gly Asn Phe Ala Lys Val Lys Leu Ala Arg His Ile Leu
65      70      75      80
Thr Gly Arg Glu Val Ala Ile Lys Ile Ile Asp Lys Thr Gln Leu Asn
85      90      95
Pro Ser Ser Leu Gln Lys Leu Phe Arg Glu Val Arg Ile Met Lys Gly
100     105     110
Leu Asn His Pro Asn Ile Val Lys Leu Phe Glu Val Ile Glu Thr Glu
115     120     125
Lys Thr Leu Tyr Leu Val Met Glu Tyr Ala Ser Ala Gly Glu Val Phe
130     135     140
Asp Tyr Leu Val Ser His Gly Arg Met Lys Glu Lys Glu Ala Arg Ala
145     150     155     160
Lys Phe Arg Gln Ile Val Ser Ala Val His Tyr Cys His Gln Lys Asn
165     170     175
Ile Val His Arg Asp Leu Lys Ala Glu Asn Leu Leu Leu Asp Ala Glu
180     185     190
Ala Asn Ile Lys Ile Ala Asp Phe Gly Phe Ser Asn Glu Phe Thr Leu
195     200     205
Gly Ser Lys Leu Asp Thr Phe Cys Gly Ser Pro Pro Tyr Ala Ala Pro
210     215     220
Glu Leu Phe Gln Gly Lys Lys Tyr Asp Gly Pro Glu Val Asp Ile Trp
225     230     235     240
Ser Leu Gly Val Ile Leu Tyr Thr Leu Val Ser Gly Ser Leu Pro Phe
245     250     255
Asp Gly His Asn Leu Lys Glu Leu Arg Glu Arg Val Leu Arg Gly Lys
260     265     270
Tyr Arg Val Pro Phe Tyr Met Ser Thr Asp Cys Glu Ser Ile Leu Arg
275     280     285
Arg Phe Leu Val Leu Asn Pro Ala Lys Arg Cys Thr Leu Glu Gln Ile
290     295     300
Met Lys Asp Lys Trp Ile Asn Ile Gly Tyr Glu Gly Glu Glu Leu Lys
305     310     315     320
Pro Tyr Thr Glu Pro Glu Glu Asp Phe Gly Asp Thr Lys Arg Ile Glu
325     330     335
Val Met Val Gly Met Gly Tyr Thr Arg Glu Glu Ile Lys Glu Ser Leu
340     345     350
Thr Ser Gln Lys Tyr Asn Glu Val Thr Ala Thr Tyr Leu Leu Leu Gly
355     360     365
Arg Lys Thr Glu Glu Gly Gly Asp Arg Gly Ala Pro Gly Leu Ala Leu
370     375     380
Ala Arg Val Arg Ala Pro Ser Asp Thr Thr Asn Gly Thr Ser Ser Ser
385     390     395     400
Lys Gly Thr Ser His Ser Lys Gly Gln Arg Ser Ser Ser Ser Thr Tyr
405     410     415
His Arg Gln Arg Arg His Ser Asp Phe Cys Gly Pro Ser Pro Ala Pro
420     425     430
Leu His Pro Lys Arg Ser Pro Thr Ser Thr Gly Glu Ala Glu Leu Lys
435     440     445
Glu Glu Arg Leu Pro Gly Arg Lys Ala Ser Cys Ser Thr Ala Gly Ser
450     455     460
Gly Ser Arg Gly Leu Pro Pro Ser Ser Pro Met Val Ser Ser Ala His
465     470     475     480
Asn Pro Asn Lys Ala Glu Ile Pro Glu Arg Arg Lys Asp Ser Thr Ser
485     490     495
Thr Pro Asn Asn Leu Pro Pro Ser Met Met Thr Arg Arg Asn Thr Tyr
500     505     510
Val Cys Thr Glu Arg Pro Gly Ala Glu Arg Pro Ser Leu Leu Pro Asn
515     520     525
Gly Lys Glu Asn Ser Ser Gly Thr Pro Arg Val Pro Pro Ala Ser Pro

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530		535		540
Ser Ser His Ser Leu Ala	Pro Pro Ser Gly Glu Arg Ser Arg Leu Ala			
545	550	555	560	
Arg Gly Ser Thr Ile Arg Ser Thr Phe His Gly Gly Gln Val Arg Asp				
	565	570	575	
Arg Arg Ala Gly Gly Gly Gly Gly Val Gln Asn Gly Pro Pro				
	580	585	590	
Ala Ser Pro Thr Leu Ala His Glu Ala Ala Pro Leu Pro Ala Gly Arg				
	595	600	605	
Pro Arg Pro Thr Thr Asn Leu Phe Thr Lys Leu Thr Ser Lys Leu Thr				
	610	615	620	
Arg Arg Val Thr Leu Asp Pro Ser Lys Arg Gln Asn Ser Asn Arg Cys				
	625	630	635	640
Val Ser Gly Ala Ser Leu Pro Gln Gly Ser Lys Ile Arg Ser Gln Thr				
	645	650	655	
Asn Leu Arg Glu Ser Gly Asp Leu Arg Ser Gln Val Ala Ile Tyr Leu				
	660	665	670	
Gly Ile Lys Arg Lys Pro Pro Pro Gly Cys Ser Asp Ser Pro Gly Val				
	675	680	685	

<210> 316

<211> 338

<212> PRT

<213> Homo sapiens

<400> 316

Met Ser Leu Ser Ala Phe Thr Leu Phe Leu Ala Leu Ile Gly Gly Thr				
1	5	10	15	
Ser Gly Gln Tyr Tyr Asp Tyr Asp Phe Pro Leu Ser Ile Tyr Gly Gln				
	20	25	30	
Ser Ser Pro Asn Cys Ala Pro Glu Cys Asn Cys Pro Glu Ser Tyr Pro				
	35	40	45	
Ser Ala Met Tyr Cys Asp Glu Leu Lys Leu Lys Ser Val Pro Met Val				
	50	55	60	
Pro Pro Gly Ile Lys Tyr Leu Tyr Leu Arg Asn Asn Gln Ile Asp His				
	65	70	75	80
Ile Asp Glu Lys Ala Phe Glu Asn Val Thr Asp Leu Gln Trp Leu Ile				
	85	90	95	
Leu Asp His Asn Leu Leu Glu Asn Ser Lys Ile Lys Gly Arg Val Phe				
	100	105	110	
Ser Lys Leu Lys Gln Leu Lys Lys Leu His Ile Asn His Asn Asn Leu				
	115	120	125	
Thr Glu Ser Val Gly Pro Leu Pro Lys Ser Leu Glu Asp Leu Gln Leu				
	130	135	140	
Thr His Asn Lys Ile Thr Lys Leu Gly Ser Phe Glu Gly Leu Val Asn				
	145	150	155	160
Leu Thr Phe Ile His Leu Gln His Asn Arg Leu Lys Glu Asp Ala Val				
	165	170	175	
Ser Ala Ala Phe Lys Gly Leu Lys Ser Leu Glu Tyr Leu Asp Leu Ser				
	180	185	190	
Phe Asn Gln Ile Ala Arg Leu Pro Ser Gly Leu Pro Val Ser Leu Leu				
	195	200	205	
Thr Leu Tyr Leu Asp Asn Asn Lys Ile Ser Asn Ile Pro Asp Glu Tyr				
	210	215	220	
Phe Lys Arg Phe Asn Ala Leu Gln Tyr Leu Arg Leu Ser His Asn Glu				
	225	230	235	240
Leu Ala Asp Ser Gly Ile Pro Gly Asn Ser Phe Asn Val Ser Ser Leu				
	245	250	255	
Val Glu Leu Asp Leu Ser Tyr Asn Lys Leu Lys Asn Ile Pro Thr Val				
	260	265	270	
Asn Glu Asn Leu Glu Asn Tyr Tyr Leu Glu Val Asn Gln Leu Glu Lys				
	275	280	285	
Phe Asp Ile Lys Ser Phe Cys Lys Ile Leu Gly Pro Leu Ser Tyr Ser				
	290	295	300	
Lys Ile Lys His Leu Arg Leu Asp Gly Asn Arg Ile Ser Glu Thr Ser				
	305	310	315	320
Leu Pro Pro Asp Met Tyr Glu Cys Leu Arg Val Ala Asn Glu Val Thr				
	325	330	335	

Leu Asn

<210> 317
 <211> 1466
 <212> PRT
 <213> Homo sapiens
 <400> 317
 Met Met Ser Phe Val Gln Lys Gly Ser Trp Leu Leu Leu Ala Leu Leu
 1 5 10 15
 His Pro Thr Ile Ile Leu Ala Gln Gln Glu Ala Val Glu Gly Gly Cys
 20 25 30
 Ser His Leu Gly Gln Ser Tyr Ala Asp Arg Asp Val Trp Lys Pro Glu
 35 40 45
 Pro Cys Gln Ile Cys Val Cys Asp Ser Gly Ser Val Leu Cys Asp Asp
 50 55 60
 Ile Ile Cys Asp Asp Gln Glu Leu Asp Cys Pro Asn Pro Glu Ile Pro
 65 70 75 80
 Phe Gly Glu Cys Cys Ala Val Cys Pro Gln Pro Pro Thr Ala Pro Thr
 85 90 95
 Arg Pro Pro Asn Gly Gln Gly Pro Gln Gly Pro Lys Gly Asp Pro Gly
 100 105 110
 Pro Pro Gly Ile Pro Gly Arg Asn Gly Asp Pro Gly Ile Pro Gly Gln
 115 120 125
 Pro Gly Ser Pro Gly Ser Pro Gly Pro Pro Gly Ile Cys Glu Ser Cys
 130 135 140
 Pro Thr Gly Pro Gln Asn Tyr Ser Pro Gln Tyr Asp Ser Tyr Asp Val
 145 150 155 160
 Lys Ser Gly Val Ala Val Gly Gly Leu Ala Gly Tyr Pro Gly Pro Ala
 165 170 175
 Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Thr Ser Gly His Pro Gly
 180 185 190
 Ser Pro Gly Ser Pro Gly Tyr Gln Gly Pro Pro Gly Glu Pro Gly Gln
 195 200 205
 Ala Gly Pro Ser Gly Pro Pro Gly Pro Pro Gly Ala Ile Gly Pro Ser
 210 215 220
 Gly Pro Ala Gly Lys Asp Gly Glu Ser Gly Arg Pro Gly Arg Pro Gly
 225 230 235 240
 Glu Arg Gly Leu Pro Gly Pro Pro Gly Ile Lys Gly Pro Ala Gly Ile
 245 250 255
 Pro Gly Phe Pro Gly Met Lys Gly His Arg Gly Phe Asp Gly Arg Asn
 260 265 270
 Gly Glu Lys Gly Glu Thr Gly Ala Pro Gly Leu Lys Gly Glu Asn Gly
 275 280 285
 Leu Pro Gly Glu Asn Gly Ala Pro Gly Pro Met Gly Pro Arg Gly Ala
 290 295 300
 Pro Gly Glu Arg Gly Arg Pro Gly Leu Pro Gly Ala Ala Gly Ala Arg
 305 310 315 320
 Gly Asn Asp Gly Ala Arg Gly Ser Asp Gly Gln Pro Gly Pro Pro Gly
 325 330 335
 Pro Pro Gly Thr Ala Gly Phe Pro Gly Ser Pro Gly Ala Lys Gly Glu
 340 345 350
 Val Gly Pro Ala Gly Ser Pro Gly Ser Asn Gly Ala Pro Gly Gln Arg
 355 360 365
 Gly Glu Pro Gly Pro Gln Gly His Ala Gly Ala Gln Gly Pro Pro Gly
 370 375 380
 Pro Pro Gly Ile Asn Gly Ser Pro Gly Gly Lys Gly Glu Met Gly Pro
 385 390 395 400
 Ala Gly Ile Pro Gly Ala Pro Gly Leu Met Gly Ala Arg Gly Pro Pro
 405 410 415
 Gly Pro Ala Gly Ala Asn Gly Ala Pro Gly Leu Arg Gly Gly Ala Gly
 420 425 430
 Glu Pro Gly Lys Asn Gly Ala Lys Gly Glu Pro Gly Pro Arg Gly Glu
 435 440 445
 Arg Gly Glu Ala Gly Ile Pro Gly Val Pro Gly Ala Lys Gly Glu Asp
 450 455 460
 Gly Lys Asp Gly Ser Pro Gly Glu Pro Gly Ala Asn Gly Leu Pro Gly
 465 470 475 480
 Ala Ala Gly Glu Arg Gly Ala Pro Gly Phe Arg Gly Pro Ala Gly Pro
 485 490 495
 Asn Gly Ile Pro Gly Glu Lys Gly Pro Ala Gly Glu Arg Gly Ala Pro

			500				505				510				
Gly	Pro	Ala	Gly	Pro	Arg	Gly	Ala	Ala	Gly	Glu	Pro	Gly	Arg	Asp	Gly
Val	Pro	515	Gly	Pro	Gly	Met	520	Gly	Met	Pro	Gly	525	Pro	Gly	Gly
Pro	Gly	530	Ser	Asp	Gly	Lys	535	Pro	Pro	Gly	Ser	540	Gln	Gly	Ser
545	Gly	Arg	Pro	Gly	Pro	Gly	550	Pro	Ser	Gly	555	Arg	Gly	Gln	Pro
Gly	Arg	Pro	Gly	Pro	Gly	Pro	565	Gly	Pro	Ser	570	Arg	Gly	Gln	Pro
Val	Met	Gly	Phe	Pro	Gly	Pro	580	Lys	Gly	Asn	585	Asp	Gly	Ala	Pro
Asn	Gly	Glu	Arg	Gly	Gly	Pro	595	Gly	Gly	Pro	600	Gly	Pro	Gln	Gly
Gly	Lys	Asn	Gly	Glu	Thr	Gly	610	Pro	Gln	Gly	615	Pro	Pro	Gly	Pro
Pro	Gly	Gly	Asp	Lys	Gly	Asp	625	Thr	Gly	Pro	630	Pro	Gly	Pro	Gln
Gln	Gly	Leu	Pro	Gly	Thr	Gly	645	Gly	Pro	Pro	650	Gly	Glu	Asn	Gly
Gly	Glu	Pro	Gly	Pro	Lys	Gly	660	Asp	Ala	Gly	665	Ala	Pro	Gly	Ala
Gly	Lys	Gly	Asp	Ala	Gly	Ala	675	Pro	Gly	Glu	680	Arg	Gly	Pro	Pro
Ala	Gly	Ala	Pro	Gly	Leu	Arg	690	Gly	Gly	Ala	695	Gly	Pro	Pro	Gly
Gly	Gly	Lys	Gly	Ala	Ala	Gly	705	Pro	Pro	Gly	710	Pro	Pro	Gly	Ala
Thr	Pro	Gly	Leu	Gln	Gly	Met	725	Pro	Gly	Glu	730	Arg	Gly	Gly	Leu
Pro	Gly	Pro	Lys	Gly	Asp	Lys	740	Gly	Glu	Pro	745	Gly	Gly	Pro	Gly
Gly	Val	Pro	Gly	Lys	Asp	Gly	755	Pro	Arg	Gly	760	Pro	Thr	Gly	Pro
Pro	Pro	Gly	Pro	Ala	Gly	Gln	770	Pro	Gly	Asp	775	Lys	Gly	Glu	Gly
Pro	Gly	Leu	Pro	Gly	Ile	Ala	785	Gly	Pro	Arg	790	Gly	Ser	Pro	Gly
Gly	Glu	Thr	Gly	Pro	Gly	Pro	805	Pro	Ala	Gly	810	Phe	Pro	Gly	Ala
Gln	Asn	Gly	Glu	Pro	Gly	Gly	820	Lys	Gly	Glu	825	Arg	Gly	Ala	Pro
Lys	Gly	Glu	Gly	Gly	Pro	Pro	835	Gly	Val	Ala	840	Gly	Pro	Pro	Gly
Gly	Pro	Ala	Gly	Pro	Pro	Gly	850	Pro	Gln	Gly	855	Val	Lys	Gly	Glu
Ser	Pro	Gly	Gly	Pro	Gly	Ala	865	Ala	Gly	Phe	870	Pro	Gly	Ala	Arg
Pro	Gly	Pro	Pro	Gly	Ser	Asn	885	Gly	Asn	Pro	890	Gly	Pro	Pro	Gly
Gly	Ser	Pro	Gly	Lys	Asp	Gly	900	Pro	Pro	Gly	905	Pro	Ala	Gly	Asn
Ala	Pro	Gly	Ser	Pro	Gly	Val	915	Ser	Gly	Pro	920	Lys	Gly	Asp	Ala
Pro	Gly	Glu	Lys	Gly	Ser	Pro	930	Gly	Ala	Gln	935	Gly	Pro	Pro	Gly
Gly	Pro	Leu	Gly	Ile	Ala	Gly	945	Ile	Thr	Gly	950	Ala	Arg	Gly	Leu
Pro	Pro	Gly	Met	Pro	Gly	Pro	965	Arg	Gly	Ser	970	Pro	Gly	Pro	Gln
Lys	Gly	Glu	Ser	Gly	Lys	Pro	980	Gly	Ala	Asn	985	Gly	Leu	Ser	Gly
Gly	Pro	Pro	Gly	Pro	Gln	Gly	995	Leu	Pro	Gly	1000	Leu	Ala	Gly	Thr
Glu	Pro	Gly	Arg	Asp	Gly	Asn	1010	Pro	Gly	Ser	1015	Asp	Gly	Leu	Pro
Arg	Asp	Gly	Ser	Pro	Gly	Gly	1025	Lys	Gly	Asp	1030	Arg	Gly	Glu	Asn
Ser	Pro	Gly	Ala	Pro	Gly	Ala	1040	Pro	Gly	His	1045	Pro	Gly	Pro	Gly


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Pro Val Gly Pro Ala Gly Lys Ser Gly Asp Arg Gly Glu Ser Gly
1055 1060 1065
Pro Ala Gly Pro Ala Gly Ala Pro Gly Pro Ala Gly Ser Arg Gly
1070 1075 1080
Ala Pro Gly Pro Gln Gly Pro Arg Gly Asp Lys Gly Glu Thr Gly
1085 1090 1095
Glu Arg Gly Ala Ala Gly Ile Lys Gly His Arg Gly Phe Pro Gly
1100 1105 1110
Asn Pro Gly Ala Pro Gly Ser Pro Gly Pro Ala Gly Gln Gln Gly
1115 1120 1125
Ala Ile Gly Ser Pro Gly Pro Ala Gly Pro Arg Gly Pro Val Gly
1130 1135 1140
Pro Ser Gly Pro Pro Gly Lys Asp Gly Thr Ser Gly His Pro Gly
1145 1150 1155
Pro Ile Gly Pro Pro Gly Pro Arg Gly Asn Arg Gly Glu Arg Gly
1160 1165 1170
Ser Glu Gly Ser Pro Gly His Pro Gly Gln Pro Gly Pro Pro Gly
1175 1180 1185
Pro Pro Gly Ala Pro Gly Pro Cys Cys Gly Gly Val Gly Ala Ala
1190 1195 1200
Ala Ile Ala Gly Ile Gly Gly Glu Lys Ala Gly Gly Phe Ala Pro
1205 1210 1215
Tyr Tyr Gly Asp Glu Pro Met Asp Phe Lys Ile Asn Thr Asp Glu
1220 1225 1230
Ile Met Thr Ser Leu Lys Ser Val Asn Gly Gln Ile Glu Ser Leu
1235 1240 1245
Ile Ser Pro Asp Gly Ser Arg Lys Asn Pro Ala Arg Asn Cys Arg
1250 1255 1260
Asp Leu Lys Phe Cys His Pro Glu Leu Lys Ser Gly Glu Tyr Trp
1265 1270 1275
Val Asp Pro Asn Gln Gly Cys Lys Leu Asp Ala Ile Lys Val Phe
1280 1285 1290
Cys Asn Met Glu Thr Gly Glu Thr Cys Ile Ser Ala Asn Pro Leu
1295 1300 1305
Asn Val Pro Arg Lys His Trp Trp Thr Asp Ser Ser Ala Glu Lys
1310 1315 1320
Lys His Val Trp Phe Gly Glu Ser Met Asp Gly Gly Phe Gln Phe
1325 1330 1335
Ser Tyr Gly Asn Pro Glu Leu Pro Glu Asp Val Leu Asp Val Gln
1340 1345 1350
Leu Ala Phe Leu Arg Leu Leu Ser Ser Arg Ala Ser Gln Asn Ile
1355 1360 1365
Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr Met Asp Gln Ala Ser
1370 1375 1380
Gly Asn Val Lys Lys Ala Leu Lys Leu Met Gly Ser Asn Glu Gly
1385 1390 1395
Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe Thr Tyr Thr Val Leu
1400 1405 1410
Glu Asp Gly Cys Thr Lys His Thr Gly Glu Trp Ser Lys Thr Val
1415 1420 1425
Phe Glu Tyr Arg Thr Arg Lys Ala Val Arg Leu Pro Ile Val Asp
1430 1435 1440
Ile Ala Pro Tyr Asp Ile Gly Gly Pro Asp Gln Glu Phe Gly Val
1445 1450 1455
Asp Val Gly Pro Val Cys Phe Leu
1460 1465

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<210> 318

<211> 1464

<212> PRT

<213> Homo sapiens

<400> 318

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Met Phe Ser Phe Val Asp Leu Arg Leu Leu Leu Leu Ala Ala Thr
1 5 10 15
Ala Leu Leu Thr His Gly Gln Glu Glu Gly Gln Val Glu Gly Gln Asp
20 25 30
Glu Asp Ile Pro Pro Ile Thr Cys Val Gln Asn Gly Leu Arg Tyr His
35 40 45
Asp Arg Asp Val Trp Lys Pro Glu Pro Cys Arg Ile Cys Val Cys Asp

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50	55	60
Asn Gly Lys Val Leu Cys Asp Asp Val Ile Cys Asp Glu Thr Lys Asn		
65	70	75
Cys Pro Gly Ala Glu Val Pro Glu Gly Glu Cys Cys Pro Val Cys Pro		
85	90	95
Asp Gly Ser Glu Ser Pro Thr Asp Gln Glu Thr Thr Gly Val Glu Gly		
100	105	110
Pro Lys Gly Asp Thr Gly Pro Arg Gly Pro Arg Gly Pro Ala Gly Pro		
115	120	125
Pro Gly Arg Asp Gly Ile Pro Gly Gln Pro Gly Leu Pro Gly Pro Pro		
130	135	140
Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Leu Gly Gly Asn Phe Ala		
145	150	155
Pro Gln Leu Ser Tyr Gly Tyr Asp Glu Lys Ser Thr Gly Gly Ile Ser		
165	170	175
Val Pro Gly Pro Met Gly Pro Ser Gly Pro Arg Gly Leu Pro Gly Pro		
180	185	190
Pro Gly Ala Pro Gly Pro Gln Gly Phe Gln Gly Pro Pro Gly Glu Pro		
195	200	205
Gly Glu Pro Gly Ala Ser Gly Pro Met Gly Pro Arg Gly Pro Pro Gly		
210	215	220
Pro Pro Gly Lys Asn Gly Asp Asp Gly Glu Ala Gly Lys Pro Gly Arg		
225	230	235
Pro Gly Glu Arg Gly Pro Pro Gly Pro Gln Gly Ala Arg Gly Leu Pro		
245	250	255
Gly Thr Ala Gly Leu Pro Gly Met Lys Gly His Arg Gly Phe Ser Gly		
260	265	270
Leu Asp Gly Ala Lys Gly Asp Ala Gly Pro Ala Gly Pro Lys Gly Glu		
275	280	285
Pro Gly Ser Pro Gly Glu Asn Gly Ala Pro Gly Gln Met Gly Pro Arg		
290	295	300
Gly Leu Pro Gly Glu Arg Gly Arg Pro Gly Ala Pro Gly Pro Ala Gly		
305	310	315
Ala Arg Gly Asn Asp Gly Ala Thr Gly Ala Ala Gly Pro Pro Gly Pro		
325	330	335
Thr Gly Pro Ala Gly Pro Pro Gly Phe Pro Gly Ala Val Gly Ala Lys		
340	345	350
Gly Glu Ala Gly Pro Gln Gly Pro Arg Gly Ser Glu Gly Pro Gln Gly		
355	360	365
Val Arg Gly Glu Pro Gly Pro Pro Gly Pro Ala Gly Ala Ala Gly Pro		
370	375	380
Ala Gly Asn Pro Gly Ala Asp Gly Gln Pro Gly Ala Lys Gly Ala Asn		
385	390	395
Gly Ala Pro Gly Ile Ala Gly Ala Pro Gly Phe Pro Gly Ala Arg Gly		
405	410	415
Pro Ser Gly Pro Gln Gly Pro Gly Gly Pro Pro Gly Pro Lys Gly Asn		
420	425	430
Ser Gly Glu Pro Gly Ala Pro Gly Ser Lys Gly Asp Thr Gly Ala Lys		
435	440	445
Gly Glu Pro Gly Pro Val Gly Val Gln Gly Pro Pro Gly Pro Ala Gly		
450	455	460
Glu Glu Gly Lys Arg Gly Ala Arg Gly Glu Pro Gly Pro Thr Gly Leu		
465	470	475
Pro Gly Pro Pro Gly Glu Arg Gly Gly Pro Gly Ser Arg Gly Phe Pro		
485	490	495
Gly Ala Asp Gly Val Ala Gly Pro Lys Gly Pro Ala Gly Glu Arg Gly		
500	505	510
Ser Pro Gly Pro Ala Gly Pro Lys Gly Ser Pro Gly Glu Ala Gly Arg		
515	520	525
Pro Gly Glu Ala Gly Leu Pro Gly Ala Lys Gly Leu Thr Gly Ser Pro		
530	535	540
Gly Ser Pro Gly Pro Asp Gly Lys Thr Gly Pro Pro Gly Pro Ala Gly		
545	550	555
Gln Asp Gly Arg Pro Gly Pro Pro Gly Pro Pro Gly Ala Arg Gly Gln		
565	570	575
Ala Gly Val Met Gly Phe Pro Gly Pro Lys Gly Ala Ala Gly Glu Pro		
580	585	590
Gly Lys Ala Gly Glu Arg Gly Val Pro Gly Pro Pro Gly Ala Val Gly		
595	600	605

Pro Ala Gly Lys Asp Gly Glu Ala Gly Ala Gln Gly Pro Pro Gly Pro
 610 615 620
 Ala Gly Pro Ala Gly Glu Arg Gly Glu Gln Gly Pro Ala Gly Ser Pro
 625 630 635 640
 Gly Phe Gln Gly Leu Pro Gly Pro Ala Gly Pro Pro Gly Glu Ala Gly
 645 650 655
 Lys Pro Gly Glu Gln Gly Val Pro Gly Asp Leu Gly Ala Pro Gly Pro
 660 665 670
 Ser Gly Ala Arg Gly Glu Arg Gly Phe Pro Gly Glu Arg Gly Val Gln
 675 680 685
 Gly Pro Pro Gly Pro Ala Gly Pro Arg Gly Ala Asn Gly Ala Pro Gly
 690 695 700
 Asn Asp Gly Ala Lys Gly Asp Ala Gly Ala Pro Gly Ala Pro Gly Ser
 705 710 715 720
 Gln Gly Ala Pro Gly Leu Gln Gly Met Pro Gly Glu Arg Gly Ala Ala
 725 730 735
 Gly Leu Pro Gly Pro Lys Gly Asp Arg Gly Asp Ala Gly Pro Lys Gly
 740 745 750
 Ala Asp Gly Ser Pro Gly Lys Asp Gly Val Arg Gly Leu Thr Gly Pro
 755 760 765
 Ile Gly Pro Pro Gly Pro Ala Gly Ala Pro Gly Asp Lys Gly Glu Ser
 770 775 780
 Gly Pro Ser Gly Pro Ala Gly Pro Thr Gly Ala Arg Gly Ala Pro Gly
 785 790 795 800
 Asp Arg Gly Glu Pro Gly Pro Pro Gly Pro Ala Gly Phe Ala Gly Pro
 805 810 815
 Pro Gly Ala Asp Gly Gln Pro Gly Ala Lys Gly Glu Pro Gly Asp Ala
 820 825 830
 Gly Ala Lys Gly Asp Ala Gly Pro Pro Gly Pro Ala Gly Pro Ala Gly
 835 840 845
 Pro Pro Gly Pro Ile Gly Asn Val Gly Ala Pro Gly Ala Lys Gly Ala
 850 855 860
 Arg Gly Ser Ala Gly Pro Pro Gly Ala Thr Gly Phe Pro Gly Ala Ala
 865 870 875 880
 Gly Arg Val Gly Pro Pro Gly Pro Ser Gly Asn Ala Gly Pro Pro Gly
 885 890 895
 Pro Pro Gly Pro Ala Gly Lys Glu Gly Gly Lys Gly Pro Arg Gly Glu
 900 905 910
 Thr Gly Pro Ala Gly Arg Pro Gly Glu Val Gly Pro Pro Gly Pro Pro
 915 920 925
 Gly Pro Ala Gly Glu Lys Gly Ser Pro Gly Ala Asp Gly Pro Ala Gly
 930 935 940
 Ala Pro Gly Thr Pro Gly Pro Gln Gly Ile Ala Gly Gln Arg Gly Val
 945 950 955 960
 Val Gly Leu Pro Gly Gln Arg Gly Glu Arg Gly Phe Pro Gly Leu Pro
 965 970 975
 Gly Pro Ser Gly Glu Pro Gly Lys Gln Gly Pro Ser Gly Ala Ser Gly
 980 985 990
 Glu Arg Gly Pro Pro Gly Pro Met Gly Pro Pro Gly Leu Ala Gly Pro
 995 1000 1005
 Pro Gly Glu Ser Gly Arg Glu Gly Ala Pro Ala Ala Glu Gly Ser
 1010 1015 1020
 Pro Gly Arg Asp Gly Ser Pro Gly Ala Lys Gly Asp Arg Gly Glu
 1025 1030 1035
 Thr Gly Pro Ala Gly Pro Pro Gly Ala Pro Gly Ala Pro Gly Ala
 1040 1045 1050
 Pro Gly Pro Val Gly Pro Ala Gly Lys Ser Gly Asp Arg Gly Glu
 1055 1060 1065
 Thr Gly Pro Ala Gly Pro Ala Gly Pro Val Gly Pro Val Gly Ala
 1070 1075 1080
 Arg Gly Pro Ala Gly Pro Gln Gly Pro Arg Gly Asp Lys Gly Glu
 1085 1090 1095
 Thr Gly Glu Gln Gly Asp Arg Gly Ile Lys Gly His Arg Gly Phe
 1100 1105 1110
 Ser Gly Leu Gln Gly Pro Pro Gly Pro Pro Gly Ser Pro Gly Glu
 1115 1120 1125
 Gln Gly Pro Ser Gly Ala Ser Gly Pro Ala Gly Pro Arg Gly Pro
 1130 1135 1140
 Pro Gly Ser Ala Gly Ala Pro Gly Lys Asp Gly Leu Asn Gly Leu

1145	Pro Gly	Pro Ile Gly	Pro Pro Gly	Pro Arg Gly	Arg Thr Gly	Asp
1160	Ala Gly	Pro Val Gly	Pro Pro Gly	Pro Pro Gly	Pro Pro Gly	Pro
1175	Pro Gly	Pro Pro Ser	Ala Gly	Phe Asp Phe	Ser Phe	Leu Pro Gln
1190	Pro Pro	Gln Glu Lys	Ala His	Asp Gly Gly	Arg Tyr	Tyr Arg Ala
1205	Asp Asp	Ala Asn Val	Val Arg	Asp Arg Asp	Leu Glu	Val Asp Thr
1220	Thr Leu	Lys Ser Leu	Ser Gln	Gln Ile Glu	Asn Ile	Arg Ser Pro
1235	Glu Gly	Ser Arg Lys	Asn Pro	Ala Arg Thr	Cys Arg	Asp Leu Lys
1250	Met Cys	His Ser Asp	Trp Lys	Ser Gly Glu	Tyr Trp	Ile Asp Pro
1265	Asn Gln	Gly Cys Asn	Leu Asp	Ala Ile Lys	Val Phe	Cys Asn Met
1280	Glu Thr	Gly Glu Thr	Cys Val	Tyr Pro Thr	Gln Pro	Ser Val Ala
1295	Gln Lys	Asn Trp Tyr	Ile Ser	Lys Asn Pro	Lys Asp	Lys Arg His
1310	Val Trp	Phe Gly Glu	Ser Met	Thr Asp Gly	Phe Gln	Phe Glu Tyr
1325	Gly Gly	Gln Gly Ser	Asp Pro	Ala Asp Val	Ala Ile	Gln Leu Thr
1340	Phe Leu	Arg Leu Met	Ser Thr	Glu Ala Ser	Gln Asn	Ile Thr Tyr
1355	His Cys	Lys Asn Ser	Val Ala	Tyr Met Asp	Gln Gln	Thr Gly Asn
1370	Leu Lys	Lys Ala Leu	Leu Leu	Lys Gly Ser	Asn Glu	Ile Glu Ile
1385	Arg Ala	Glu Gly Asn	Ser Arg	Phe Thr Tyr	Ser Val	Thr Val Asp
1400	Gly Cys	Thr Ser His	Thr Gly	Ala Trp Gly	Lys Thr	Val Ile Glu
1415	Tyr Lys	Thr Thr Lys	Ser Ser	Arg Leu Pro	Ile Ile	Asp Val Ala
1430	Pro Leu	Asp Val Gly	Ala Pro	Asp Gln Glu	Phe Gly	Phe Asp Val
1445	Gly Pro	Val Cys Phe	Leu			
1460						

<210> 319

<211> 764

<212> PRT

<213> Homo sapiens

<400> 319

Met Gly	Ser Asn	Leu Ser	Pro Gln	Leu Cys	Leu Met	Pro Phe	Ile Leu
1	5	10	15				
Gly Leu	Leu Ser	Gly Gly	Val Thr	Thr Thr	Pro Trp	Ser Leu	Ala Gln
20	25	30					
Pro Gln	Gly Ser	Cys Ser	Leu Glu	Gly Val	Glu Ile	Lys Gly	Gly Ser
35	40	45					
Phe Arg	Leu Leu	Gln Glu	Gly Gln	Ala Leu	Glu Tyr	Val Cys	Pro Ser
50	55	60					
Gly Phe	Tyr Pro	Tyr Pro	Val Gln	Thr Arg	Thr Cys	Arg Ser	Thr Gly
65	70	75	80				
Ser Trp	Ser Thr	Leu Lys	Thr Gln	Asp Gln	Lys Thr	Val Arg	Lys Ala
85	90	95					
Glu Cys	Arg Ala	Ile His	Cys Pro	Arg Pro	His Asp	Phe Glu	Asn Gly
100	105	110					
Glu Tyr	Trp Pro	Arg Ser	Pro Tyr	Tyr Asn	Val Ser	Asp Glu	Ile Ser
115	120	125					
Phe His	Cys Tyr	Asp Gly	Tyr Thr	Leu Arg	Gly Ser	Ala Asn	Arg Thr
130	135	140					
Cys Gln	Val Asn	Gly Arg	Trp Ser	Gly Gln	Thr Ala	Ile Cys	Asp Asn
145	150	155	160				

Gly	Ala	Gly	Tyr	Cys	Ser	Asn	Pro	Gly	Ile	Pro	Ile	Gly	Thr	Arg	Lys
				165					170					175	
Val	Gly	Ser	Gln	Tyr	Arg	Leu	Glu	Asp	Ser	Val	Thr	Tyr	His	Cys	Ser
			180					185					190		
Arg	Gly	Leu	Thr	Leu	Arg	Gly	Ser	Gln	Arg	Arg	Thr	Cys	Gln	Glu	Gly
		195					200					205			
Gly	Ser	Trp	Ser	Gly	Thr	Glu	Pro	Ser	Cys	Gln	Asp	Ser	Phe	Met	Tyr
		210				215					220				
Asp	Thr	Pro	Gln	Glu	Val	Ala	Glu	Ala	Phe	Leu	Ser	Ser	Leu	Thr	Glu
225					230				235						240
Thr	Ile	Glu	Gly	Val	Asp	Ala	Glu	Asp	Gly	His	Gly	Pro	Gly	Glu	Gln
				245					250					255	
Gln	Lys	Arg	Lys	Ile	Val	Leu	Asp	Pro	Ser	Gly	Ser	Met	Asn	Ile	Tyr
			260					265					270		
Leu	Val	Leu	Asp	Gly	Ser	Asp	Ser	Ile	Gly	Ala	Ser	Asn	Phe	Thr	Gly
		275					280					285			
Ala	Lys	Lys	Cys	Leu	Val	Asn	Leu	Ile	Glu	Lys	Val	Ala	Ser	Tyr	Gly
		290					295				300				
Val	Lys	Pro	Arg	Tyr	Gly	Leu	Val	Thr	Tyr	Ala	Thr	Tyr	Pro	Lys	Ile
305					310					315					320
Trp	Val	Lys	Val	Ser	Glu	Ala	Asp	Ser	Ser	Asn	Ala	Asp	Trp	Val	Thr
				325					330					335	
Lys	Gln	Leu	Asn	Glu	Ile	Asn	Tyr	Glu	Asp	His	Lys	Leu	Lys	Ser	Gly
			340					345					350		
Thr	Asn	Thr	Lys	Lys	Ala	Leu	Gln	Ala	Val	Tyr	Ser	Met	Met	Ser	Trp
		355					360					365			
Pro	Asp	Asp	Val	Pro	Pro	Glu	Gly	Trp	Asn	Arg	Thr	Arg	His	Val	Ile
		370				375					380				
Ile	Leu	Met	Thr	Asp	Gly	Leu	His	Asn	Met	Gly	Gly	Asp	Pro	Ile	Thr
385					390					395					400
Val	Ile	Asp	Glu	Ile	Arg	Asp	Leu	Leu	Tyr	Ile	Gly	Lys	Asp	Arg	Lys
				405					410					415	
Asn	Pro	Arg	Glu	Asp	Tyr	Leu	Asp	Val	Tyr	Val	Phe	Gly	Val	Gly	Pro
			420					425					430		
Leu	Val	Asn	Gln	Val	Asn	Ile	Asn	Ala	Leu	Ala	Ser	Lys	Lys	Asp	Asn
		435					440					445			
Glu	Gln	His	Val	Phe	Lys	Val	Lys	Asp	Met	Glu	Asn	Leu	Glu	Asp	Val
		450				455				460					
Phe	Tyr	Gln	Met	Ile	Asp	Glu	Ser	Gln	Ser	Leu	Ser	Leu	Cys	Gly	Met
465					470				475						480
Val	Trp	Glu	His	Arg	Lys	Gly	Thr	Asp	Tyr	His	Lys	Gln	Pro	Trp	Gln
				485					490					495	
Ala	Lys	Ile	Ser	Val	Ile	Arg	Pro	Ser	Lys	Gly	His	Glu	Ser	Cys	Met
			500					505					510		
Gly	Ala	Val	Val	Ser	Glu	Tyr	Phe	Val	Leu	Thr	Ala	Ala	His	Cys	Phe
		515					520					525			
Thr	Val	Asp	Asp	Lys	Glu	His	Ser	Ile	Lys	Val	Ser	Val	Gly	Gly	Glu
		530				535					540				
Lys	Arg	Asp	Leu	Glu	Ile	Glu	Val	Val	Leu	Phe	His	Pro	Asn	Tyr	Asn
545					550					555					560
Ile	Asn	Gly	Lys	Lys	Glu	Ala	Gly	Ile	Pro	Glu	Phe	Tyr	Asp	Tyr	Asp
				565					570					575	
Val	Ala	Leu	Ile	Lys	Leu	Lys	Asn	Lys	Leu	Lys	Tyr	Gly	Gln	Thr	Ile
			580					585					590		
Arg	Pro	Ile	Cys	Leu	Pro	Cys	Thr	Glu	Gly	Thr	Thr	Arg	Ala	Leu	Arg
		595					600					605			
Leu	Pro	Pro	Thr	Thr	Thr	Cys	Gln	Gln	Gln	Lys	Glu	Glu	Leu	Leu	Pro
		610				615						620			
Ala	Gln	Asp	Ile	Lys	Ala	Leu	Phe	Val	Ser	Glu	Glu	Glu	Lys	Lys	Leu
625					630					635					640
Thr	Arg	Lys	Glu	Val	Tyr	Ile	Lys	Asn	Gly	Asp	Lys	Lys	Gly	Ser	Cys
				645					650					655	
Glu	Arg	Asp	Ala	Gln	Tyr	Ala	Pro	Gly	Tyr	Asp	Lys	Val	Lys	Asp	Ile
			660					665					670		
Ser	Glu	Val	Val	Thr	Pro	Arg	Phe	Leu	Cys	Thr	Gly	Gly	Val	Ser	Pro
		675					680						685		
Tyr	Ala	Asp	Pro	Asn	Thr	Cys	Arg	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Ile
		690				695					700				
Val	His	Lys	Arg	Ser	Arg	Phe	Ile	Gln	Val	Gly	Val	Ile	Ser	Trp	Gly

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705          710          715          720
Val Val Asp Val Cys Lys Asn Gln Lys Arg Gln Lys Gln Val Pro Ala
725          730          735
His Ala Arg Asp Phe His Ile Asn Leu Phe Gln Val Leu Pro Trp Leu
740          745          750
Lys Glu Lys Leu Gln Asp Glu Asp Leu Gly Phe Leu
755          760

<210> 320
<211> 909
<212> PRT
<213> Homo sapiens
<400> 320
Met Ala Ala Arg Pro Leu Pro Val Ser Pro Ala Arg Ala Leu Leu Leu
1          5          10          15
Ala Leu Ala Gly Ala Leu Leu Ala Pro Cys Glu Ala Arg Gly Val Ser
20          25          30
Leu Trp Asn Gln Gly Arg Ala Asp Glu Val Val Ser Ala Ser Val Arg
35          40          45
Ser Gly Asp Leu Trp Ile Pro Val Lys Ser Phe Asp Ser Lys Asn His
50          55          60
Pro Glu Val Leu Asn Ile Arg Leu Gln Arg Glu Ser Lys Glu Leu Ile
65          70          75          80
Ile Asn Leu Glu Arg Asn Glu Gly Leu Ile Ala Ser Ser Phe Thr Glu
85          90          95
Thr His Tyr Leu Gln Asp Gly Thr Asp Val Ser Leu Ala Arg Asn Tyr
100          105          110
Thr Val Ile Leu Gly His Cys Tyr Tyr His Gly His Val Arg Gly Tyr
115          120          125
Ser Asp Ser Ala Val Ser Leu Ser Thr Cys Ser Gly Leu Arg Gly Leu
130          135          140
Ile Val Phe Glu Asn Glu Ser Tyr Val Leu Glu Pro Met Lys Ser Ala
145          150          155          160
Thr Asn Arg Tyr Lys Leu Phe Pro Ala Lys Lys Leu Lys Ser Val Arg
165          170          175
Gly Ser Cys Gly Ser His His Asn Thr Pro Asn Leu Ala Ala Lys Asn
180          185          190
Val Phe Pro Pro Pro Ser Gln Thr Trp Ala Arg Arg His Lys Arg Glu
195          200          205
Thr Leu Lys Ala Thr Lys Tyr Val Glu Leu Val Ile Val Ala Asp Asn
210          215          220
Arg Glu Phe Gln Arg Gln Gly Lys Asp Leu Glu Lys Val Lys Gln Arg
225          230          235          240
Leu Ile Glu Ile Ala Asn His Val Asp Lys Phe Tyr Arg Pro Leu Asn
245          250          255
Ile Arg Ile Val Leu Val Gly Val Glu Val Trp Asn Asp Met Asp Lys
260          265          270
Cys Ser Val Ser Gln Asp Pro Phe Thr Ser Leu His Glu Phe Leu Asp
275          280          285
Trp Arg Lys Met Lys Leu Leu Pro Arg Lys Ser His Asp Asn Ala Gln
290          295          300
Leu Val Ser Gly Val Tyr Phe Gln Gly Thr Thr Ile Gly Met Ala Pro
305          310          315          320
Ile Met Ser Met Cys Thr Ala Asp Gln Ser Gly Gly Ile Val Met Asp
325          330          335
His Ser Asp Asn Pro Leu Gly Ala Ala Val Thr Leu Ala His Glu Leu
340          345          350
Gly His Asn Phe Gly Met Asn His Asp Thr Leu Asp Arg Gly Cys Ser
355          360          365
Cys Gln Met Ala Val Glu Lys Gly Gly Cys Ile Met Asn Ala Ser Thr
370          375          380
Gly Tyr Pro Phe Pro Met Val Phe Ser Ser Cys Ser Arg Lys Asp Leu
385          390          395          400
Glu Thr Ser Leu Glu Lys Gly Met Gly Val Cys Leu Phe Asn Leu Pro
405          410          415
Glu Val Arg Glu Ser Phe Gly Gly Gln Lys Cys Gly Asn Arg Phe Val
420          425          430
Glu Glu Gly Glu Glu Cys Asp Cys Gly Glu Pro Glu Glu Cys Met Asn
435          440          445

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Arg Cys Cys Asn Ala Thr Thr Cys Thr Leu Lys Pro Asp Ala Val Cys
  450          455          460
Ala His Gly Leu Cys Cys Glu Asp Cys Gln Leu Lys Pro Ala Gly Thr
465          470          475          480
Ala Cys Arg Asp Ser Ser Asn Ser Cys Asp Leu Pro Glu Phe Cys Thr
          485          490          495
Gly Ala Ser Pro His Cys Pro Ala Asn Val Tyr Leu His Asp Gly His
          500          505          510
Ser Cys Gln Asp Val Asp Gly Tyr Cys Tyr Asn Gly Ile Cys Gln Thr
          515          520          525
His Glu Gln Gln Cys Val Thr Leu Trp Gly Pro Gly Ala Lys Pro Ala
          530          535          540
Pro Gly Ile Cys Phe Glu Arg Val Asn Ser Ala Gly Asp Pro Tyr Gly
545          550          555          560
Asn Cys Gly Lys Val Ser Lys Ser Ser Phe Ala Lys Cys Glu Met Arg
          565          570          575
Asp Ala Lys Cys Gly Lys Ile Gln Cys Gln Gly Gly Ala Ser Arg Pro
          580          585          590
Val Ile Gly Thr Asn Ala Val Ser Ile Glu Thr Asn Ile Pro Leu Gln
          595          600          605
Gln Gly Gly Arg Ile Leu Cys Arg Gly Thr His Val Tyr Leu Gly Asp
          610          615          620
Asp Met Pro Asp Pro Gly Leu Val Leu Ala Gly Thr Lys Cys Ala Asp
625          630          635          640
Gly Lys Ile Cys Leu Asn Arg Gln Cys Gln Asn Ile Ser Val Phe Gly
          645          650          655
Val His Glu Cys Ala Met Gln Cys His Gly Arg Gly Val Cys Asn Asn
          660          665          670
Arg Lys Asn Cys His Cys Glu Ala His Trp Ala Pro Pro Phe Cys Asp
          675          680          685
Lys Phe Gly Phe Gly Gly Ser Thr Asp Ser Gly Pro Ile Arg Gln Ala
          690          695          700
Asp Asn Gln Gly Leu Thr Ile Gly Ile Leu Val Thr Ile Leu Cys Leu
705          710          715          720
Leu Ala Ala Gly Phe Val Val Tyr Leu Lys Arg Lys Thr Leu Ile Arg
          725          730          735
Leu Leu Phe Thr Asn Lys Lys Thr Thr Ile Glu Lys Leu Arg Cys Val
          740          745          750
Arg Pro Ser Arg Pro Pro Arg Gly Phe Gln Pro Cys Gln Ala His Leu
          755          760          765
Gly His Leu Gly Lys Gly Leu Met Arg Lys Pro Pro Asp Ser Tyr Pro
          770          775          780
Pro Lys Asp Asn Pro Arg Arg Leu Leu Gln Cys Gln Asn Val Asp Ile
785          790          795          800
Ser Arg Pro Leu Asn Gly Leu Asn Val Pro Gln Pro Gln Ser Thr Gln
          805          810          815
Arg Val Leu Pro Pro Leu His Arg Ala Pro Arg Ala Pro Ser Val Pro
          820          825          830
Ala Arg Pro Leu Pro Ala Lys Pro Ala Leu Arg Gln Ala Gln Gly Thr
          835          840          845
Cys Lys Pro Asn Pro Pro Gln Lys Pro Leu Pro Ala Asp Pro Leu Ala
          850          855          860
Arg Thr Thr Arg Leu Thr His Ala Leu Ala Arg Thr Pro Gly Gln Trp
865          870          875          880
Glu Thr Gly Leu Arg Leu Ala Pro Leu Arg Pro Ala Pro Gln Tyr Pro
          885          890          895
His Gln Val Pro Arg Ser Thr His Thr Ala Tyr Ile Lys
          900          905

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<210> 321

<211> 574

<212> PRT

<213> Homo sapiens

<400> 321

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Met Ala Leu Ala Arg Gly Ser Arg Gln Leu Gly Ala Leu Val Trp Gly
  1          5          10          15
Ala Cys Leu Cys Val Leu Val His Gly Gln Gln Ala Gln Pro Gly Gln
          20          25          30
Gly Ser Asp Pro Ala Arg Trp Arg Gln Leu Ile Gln Trp Glu Asn Asn

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      35      40      45
Gly Gln Val Tyr Ser Leu Leu Asn Ser Gly Ser Glu Tyr Val Pro Ala
  50      55      60
Gly Pro Gln Arg Ser Glu Ser Ser Ser Arg Val Leu Leu Ala Gly Ala
  65      70      75      80
Pro Gln Ala Gln Gln Arg Arg Ser His Gly Ser Pro Arg Arg Arg Gln
      85      90      95
Ala Pro Ser Leu Pro Leu Pro Gly Arg Val Gly Ser Asp Thr Val Arg
      100      105      110
Gly Gln Ala Arg His Pro Phe Gly Phe Gly Gln Val Pro Asp Asn Trp
      115      120      125
Arg Glu Val Ala Val Gly Asp Ser Thr Gly Met Ala Leu Ala Arg Thr
      130      135      140
Ser Val Ser Gln Gln Arg His Gly Gly Ser Ala Ser Ser Val Ser Ala
      145      150      155      160
Ser Ala Phe Ala Ser Thr Tyr Arg Gln Gln Pro Ser Tyr Pro Gln Gln
      165      170      175
Phe Pro Tyr Pro Gln Ala Pro Phe Val Ser Gln Tyr Glu Asn Tyr Asp
      180      185      190
Pro Ala Ser Arg Thr Tyr Asp Gln Gly Phe Val Tyr Tyr Arg Pro Ala
      195      200      205
Gly Gly Gly Val Gly Ala Gly Ala Ala Val Ala Ser Ala Gly Val
      210      215      220
Ile Tyr Pro Tyr Gln Pro Arg Ala Arg Tyr Glu Glu Tyr Gly Gly Gly
      225      230      235      240
Glu Glu Leu Pro Glu Tyr Pro Pro Gln Gly Phe Tyr Pro Ala Pro Glu
      245      250      255
Arg Pro Tyr Val Pro Pro Pro Pro Pro Pro Pro Asp Gly Leu Asp Arg
      260      265      270
Arg Tyr Ser His Ser Leu Tyr Ser Glu Gly Thr Pro Gly Phe Glu Gln
      275      280      285
Ala Tyr Pro Asp Pro Gly Pro Glu Ala Ala Gln Ala His Gly Gly Asp
      290      295      300
Pro Arg Leu Gly Trp Tyr Pro Pro Tyr Ala Asn Pro Pro Pro Glu Ala
      305      310      315      320
Tyr Gly Pro Pro Arg Ala Leu Glu Pro Pro Tyr Leu Pro Val Arg Ser
      325      330      335
Ser Asp Thr Pro Pro Pro Gly Gly Glu Arg Asn Gly Ala Gln Gln Gly
      340      345      350
Arg Leu Ser Val Gly Ser Val Tyr Arg Pro Asn Gln Asn Gly Arg Gly
      355      360      365
Leu Pro Asp Leu Val Pro Asp Pro Asn Tyr Val Gln Ala Ser Thr Tyr
      370      375      380
Val Gln Arg Ala His Leu Tyr Ser Leu Arg Cys Ala Ala Glu Glu Lys
      385      390      395      400
Cys Leu Ala Ser Thr Ala Tyr Ala Pro Glu Ala Thr Asp Tyr Asp Val
      405      410      415
Arg Val Leu Leu Arg Phe Pro Gln Arg Val Lys Asn Gln Gly Thr Ala
      420      425      430
Asp Phe Leu Pro Asn Arg Pro Arg His Thr Trp Glu Trp His Ser Cys
      435      440      445
His Gln His Tyr His Ser Met Asp Glu Phe Ser His Tyr Asp Leu Leu
      450      455      460
Asp Ala Ala Thr Gly Lys Lys Val Ala Glu Gly His Lys Ala Ser Phe
      465      470      475      480
Cys Leu Glu Asp Ser Thr Cys Asp Phe Gly Asn Leu Lys Arg Tyr Ala
      485      490      495
Cys Thr Ser His Thr Gln Gly Leu Ser Pro Gly Cys Tyr Asp Thr Tyr
      500      505      510
Asn Ala Asp Ile Asp Cys Gln Trp Ile Asp Ile Thr Asp Val Gln Pro
      515      520      525
Gly Asn Tyr Ile Leu Lys Val His Val Asn Pro Lys Tyr Ile Val Leu
      530      535      540
Glu Ser Asp Phe Thr Asn Asn Val Val Arg Cys Asn Ile His Tyr Thr
      545      550      555      560
Gly Arg Tyr Val Ser Ala Thr Asn Cys Lys Ile Val Gln Ser
      565      570

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<210> 322

<211> 344
 <212> PRT
 <213> Homo sapiens
 <400> 322

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Met Gly Pro  Pro  Ser  Ala  Pro  Pro  Cys  Arg  Leu  His  Val  Pro  Trp  Lys
1          5          10          15
Glu Val Leu  Leu  Thr  Ala  Ser  Leu  Leu  Thr  Phe  Trp  Asn  Pro  Pro  Thr
          20          25          30
Thr Ala Lys  Leu  Thr  Ile  Glu  Ser  Thr  Pro  Phe  Asn  Val  Ala  Glu  Gly
          35          40          45
Lys Glu Val  Leu  Leu  Leu  Ala  His  Asn  Leu  Pro  Gln  Asn  Arg  Ile  Gly
          50          55          60
Tyr Ser Trp  Tyr  Lys  Gly  Glu  Arg  Val  Asp  Gly  Asn  Ser  Leu  Ile  Val
65          70          75          80
Gly Tyr Val  Ile  Gly  Thr  Gln  Gln  Ala  Thr  Pro  Gly  Pro  Ala  Tyr  Ser
          85          90          95
Gly Arg Glu  Thr  Ile  Tyr  Pro  Asn  Ala  Ser  Leu  Leu  Ile  Gln  Asn  Val
          100         105         110
Thr Gln Asn  Asp  Thr  Gly  Phe  Tyr  Thr  Leu  Gln  Val  Ile  Lys  Ser  Asp
          115         120         125
Leu Val Asn  Glu  Glu  Ala  Thr  Gly  Gln  Phe  His  Val  Tyr  Pro  Glu  Leu
          130         135         140
Pro Lys Pro  Ser  Ile  Ser  Ser  Asn  Asn  Ser  Asn  Pro  Val  Glu  Asp  Lys
145          150         155         160
Asp Ala Val  Ala  Phe  Thr  Cys  Glu  Pro  Glu  Val  Gln  Asn  Thr  Thr  Tyr
          165         170         175
Leu Trp Trp  Val  Asn  Gly  Gln  Ser  Leu  Pro  Val  Ser  Pro  Arg  Leu  Gln
          180         185         190
Leu Ser Asn  Gly  Asn  Met  Thr  Leu  Thr  Leu  Leu  Ser  Val  Lys  Arg  Asn
          195         200         205
Asp Ala Gly  Ser  Tyr  Glu  Cys  Glu  Ile  Gln  Asn  Pro  Ala  Ser  Ala  Asn
          210         215         220
Arg Ser Asp  Pro  Val  Thr  Leu  Asn  Val  Leu  Tyr  Gly  Pro  Asp  Val  Pro
225          230         235         240
Thr Ile Ser  Pro  Ser  Lys  Ala  Asn  Tyr  Arg  Pro  Gly  Glu  Asn  Leu  Asn
          245         250         255
Leu Ser Cys  His  Ala  Ala  Ser  Asn  Pro  Pro  Ala  Gln  Tyr  Ser  Trp  Phe
          260         265         270
Ile Asn Gly  Thr  Phe  Gln  Gln  Ser  Thr  Gln  Glu  Leu  Phe  Ile  Pro  Asn
          275         280         285
Ile Thr Val  Asn  Asn  Ser  Gly  Ser  Tyr  Met  Cys  Gln  Ala  His  Asn  Ser
          290         295         300
Ala Thr Gly  Leu  Asn  Arg  Thr  Thr  Val  Thr  Met  Ile  Thr  Val  Ser  Gly
305          310         315         320
Ser Ala Pro  Val  Leu  Ser  Ala  Val  Ala  Thr  Val  Gly  Ile  Thr  Ile  Gly
          325         330         335
Val Leu Ala  Arg  Val  Ala  Leu  Ile
          340

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<210> 323
 <211> 488
 <212> PRT
 <213> Homo sapiens
 <400> 323

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Met Ala Pro  Ala  Ala  Trp  Leu  Arg  Ser  Ala  Ala  Ala  Arg  Ala  Leu  Leu
1          5          10          15
Pro Pro Met  Leu  Leu  Leu  Leu  Gln  Pro  Pro  Pro  Leu  Leu  Ala  Arg
          20          25          30
Ala Leu Pro  Pro  Asp  Val  His  His  Leu  His  Ala  Glu  Arg  Arg  Gly  Pro
          35          40          45
Gln Pro Trp  His  Ala  Ala  Leu  Pro  Ser  Ser  Pro  Ala  Pro  Ala  Pro  Ala
          50          55          60
Thr Gln Glu  Ala  Pro  Arg  Pro  Ala  Ser  Ser  Leu  Arg  Pro  Pro  Arg  Cys
65          70          75          80
Gly Val Pro  Asp  Pro  Ser  Asp  Gly  Leu  Ser  Ala  Arg  Asn  Arg  Gln  Lys
          85          90          95
Arg Phe Val  Leu  Ser  Gly  Gly  Arg  Trp  Glu  Lys  Thr  Asp  Leu  Thr  Tyr
          100         105         110
Arg Ile Leu  Arg  Phe  Pro  Trp  Gln  Leu  Val  Gln  Glu  Gln  Val  Arg  Gln
          115         120         125

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<210>	324																		
<211>	469																		
<212>	PRT																		
<213>	Homo sapiens																		
<400>	324																		
Met	His	Ser	Phe	Pro	Pro	Leu	Leu	Leu	Leu	Leu	Phe	Trp	Gly	Val	Val				
1			5					10						15					
Ser	His	Ser	Phe	Pro	Ala	Thr	Leu	Glu	Thr	Gln	Glu	Gln	Asp	Val	Asp				
			20					25					30						
Leu	Val	Gln	Lys	Tyr	Leu	Glu	Lys	Tyr	Tyr	Asn	Leu	Lys	Asn	Asp	Gly				
		35					40					45							
Arg	Gln	Val	Glu	Lys	Arg	Arg	Asn	Ser	Gly	Pro	Val	Val	Glu	Lys	Leu				
	50					55					60								
Lys	Gln	Met	Gln	Glu	Phe	Phe	Gly	Leu	Lys	Val	Thr	Gly	Lys	Pro	Asp				
65					70					75				80					
Ala	Glu	Thr	Leu	Lys	Val	Met	Lys	Gln	Pro	Arg	Cys	Gly	Val	Pro	Asp				
			85						90					95					
Val	Ala	Gln	Phe	Val	Leu	Thr	Glu	Gly	Asn	Pro	Arg	Trp	Glu	Gln	Thr				
			100					105					110						
His	Leu	Thr	Tyr	Arg	Ile	Glu	Asn	Tyr	Thr	Pro	Asp	Leu	Pro	Arg	Ala				
			115				120					125							

Asp Val Asp His Ala Ile Glu Lys Ala Phe Gln Leu Trp Ser Asn Val
 130 135 140
 Thr Pro Leu Thr Phe Thr Lys Val Ser Glu Gly Gln Ala Asp Ile Met
 145 150 155 160
 Ile Ser Phe Val Arg Gly Asp His Arg Asp Asn Ser Pro Phe Asp Gly
 165 170 175
 Pro Gly Gly Asn Leu Ala His Ala Phe Gln Pro Gly Pro Gly Ile Gly
 180 185 190
 Gly Asp Ala His Phe Asp Glu Asp Glu Arg Trp Thr Asn Asn Phe Arg
 195 200 205
 Glu Tyr Asn Leu His Arg Val Ala Ala His Glu Leu Gly His Ser Leu
 210 215 220
 Gly Leu Ser His Ser Thr Asp Ile Gly Ala Leu Met Tyr Pro Ser Tyr
 225 230 235 240
 Thr Phe Ser Gly Asp Val Gln Leu Ala Gln Asp Asp Ile Asp Gly Ile
 245 250 255
 Gln Ala Ile Tyr Gly Arg Ser Gln Asn Pro Val Gln Pro Ile Gly Pro
 260 265 270
 Gln Thr Pro Lys Ala Cys Asp Ser Lys Leu Thr Phe Asp Ala Ile Thr
 275 280 285
 Thr Ile Arg Gly Glu Val Met Phe Phe Lys Asp Arg Phe Tyr Met Arg
 290 295 300
 Thr Asn Pro Phe Tyr Pro Glu Val Glu Leu Asn Phe Ile Ser Val Phe
 305 310 315 320
 Trp Pro Gln Leu Pro Asn Gly Leu Glu Ala Ala Tyr Glu Phe Ala Asp
 325 330 335
 Arg Asp Glu Val Arg Phe Phe Lys Gly Asn Lys Tyr Trp Ala Val Gln
 340 345 350
 Gly Gln Asn Val Leu His Gly Tyr Pro Lys Asp Ile Tyr Ser Ser Phe
 355 360 365
 Gly Phe Pro Arg Thr Val Lys His Ile Asp Ala Ala Leu Ser Glu Glu
 370 375 380
 Asn Thr Gly Lys Thr Tyr Phe Phe Val Ala Asn Lys Tyr Trp Arg Tyr
 385 390 395 400
 Asp Glu Tyr Lys Arg Ser Met Asp Pro Gly Tyr Pro Lys Met Ile Ala
 405 410 415
 His Asp Phe Pro Gly Ile Gly His Lys Val Asp Ala Val Phe Met Lys
 420 425 430
 Asp Gly Phe Phe Tyr Phe Phe His Gly Thr Arg Gln Tyr Lys Phe Asp
 435 440 445
 Pro Lys Thr Lys Arg Ile Leu Thr Leu Gln Lys Ala Asn Ser Trp Phe
 450 455 460
 Asn Cys Arg Lys Asn
 465

<210> 325

<211> 471

<212> PRT

<213> Homo sapiens

<400> 325

Met His Pro Gly Val Leu Ala Ala Phe Leu Phe Leu Ser Trp Thr His
 1 5 10 15
 Cys Arg Ala Leu Pro Leu Pro Ser Gly Gly Asp Glu Asp Asp Leu Ser
 20 25 30
 Glu Glu Asp Leu Gln Phe Ala Glu Arg Tyr Leu Arg Ser Tyr Tyr His
 35 40 45
 Pro Thr Asn Leu Ala Gly Ile Leu Lys Glu Asn Ala Ala Ser Ser Met
 50 55 60
 Thr Glu Arg Leu Arg Glu Met Gln Ser Phe Phe Gly Leu Glu Val Thr
 65 70 75 80
 Gly Lys Leu Asp Asp Asn Thr Leu Asp Val Met Lys Lys Pro Arg Cys
 85 90 95
 Gly Val Pro Asp Val Gly Glu Tyr Asn Val Phe Pro Arg Thr Leu Lys
 100 105 110
 Trp Ser Lys Met Asn Leu Thr Tyr Arg Ile Val Asn Tyr Thr Pro Asp
 115 120 125
 Met Thr His Ser Glu Val Glu Lys Ala Phe Lys Lys Ala Phe Lys Val
 130 135 140
 Trp Ser Asp Val Thr Pro Leu Asn Phe Thr Arg Leu His Asp Gly Ile

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<210> 326
<211> 418
<212> PRT
<213> Homo sapiens
<400> 326
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Met	Arg	Ser	Leu	Leu	Leu	Leu	Ser	Ala	Phe	Cys	Leu	Leu	Glu	Ala	Ala
1			5						10					15	
Leu	Ala	Ala	Glu	Val	Lys	Lys	Pro	Ala	Ala	Ala	Ala	Ala	Pro	Gly	Thr
			20					25					30		
Ala	Glu	Lys	Leu	Ser	Pro	Lys	Ala	Ala	Thr	Leu	Ala	Glu	Arg	Ser	Ala
		35					40					45			
Gly	Leu	Ala	Phe	Ser	Leu	Tyr	Gln	Ala	Met	Ala	Lys	Asp	Gln	Ala	Val
	50					55					60				
Glu	Asn	Ile	Leu	Val	Ser	Pro	Val	Val	Val	Ala	Ser	Ser	Leu	Gly	Leu
65					70					75					80
Val	Ser	Leu	Gly	Gly	Lys	Ala	Thr	Thr	Ala	Ser	Gln	Ala	Lys	Ala	Val
			85						90					95	
Leu	Ser	Ala	Glu	Gln	Leu	Arg	Asp	Glu	Glu	Val	His	Ala	Gly	Leu	Gly
			100					105					110		
Glu	Leu	Leu	Arg	Ser	Leu	Ser	Asn	Ser	Thr	Ala	Arg	Asn	Val	Thr	Trp
		115					120					125			
Lys	Leu	Gly	Ser	Arg	Leu	Tyr	Gly	Pro	Ser	Ser	Val	Ser	Phe	Ala	Asp
	130					135					140				
Asp	Phe	Val	Arg	Ser	Ser	Lys	Gln	His	Tyr	Asn	Cys	Glu	His	Ser	Lys
145					150					155					160
Ile	Asn	Phe	Arg	Asp	Lys	Arg	Ser	Ala	Leu	Gln	Ser	Ile	Asn	Glu	Trp
			165						170					175	

Ala Ala Gln Thr Thr Asp Gly Lys Leu Pro Glu Val Thr Lys Asp Val
 180 185 190
 Glu Arg Thr Asp Gly Ala Leu Leu Val Asn Ala Met Phe Phe Lys Pro
 195 200 205
 His Trp Asp Glu Lys Phe His His Lys Met Val Asp Asn Arg Gly Phe
 210 215 220
 Met Val Thr Arg Ser Tyr Thr Val Gly Val Met Met Met His Arg Thr
 225 230 235 240
 Gly Leu Tyr Asn Tyr Tyr Asp Asp Glu Lys Glu Lys Leu Gln Ile Val
 245 250 255
 Glu Met Pro Leu Ala His Lys Leu Ser Ser Leu Ile Ile Leu Met Pro
 260 265 270
 His His Val Glu Pro Leu Glu Arg Leu Glu Lys Leu Leu Thr Lys Glu
 275 280 285
 Gln Leu Lys Ile Trp Met Gly Lys Met Gln Lys Lys Ala Val Ala Ile
 290 295 300
 Ser Leu Pro Lys Gly Val Val Glu Val Thr His Asp Leu Gln Lys His
 305 310 315 320
 Leu Ala Gly Leu Gly Leu Thr Glu Ala Ile Asp Lys Asn Lys Ala Asp
 325 330 335
 Leu Ser Arg Met Ser Gly Lys Lys Asp Leu Tyr Leu Ala Ser Val Phe
 340 345 350
 His Ala Thr Ala Phe Glu Leu Asp Thr Asp Gly Asn Pro Phe Asp Gln
 355 360 365
 Asp Ile Tyr Gly Arg Glu Glu Leu Arg Ser Pro Lys Leu Phe Tyr Ala
 370 375 380
 Asp His Pro Phe Ile Phe Leu Val Arg Asp Thr Gln Ser Gly Ser Leu
 385 390 395 400
 Leu Phe Ile Gly Arg Leu Val Arg Pro Lys Gly Asp Lys Met Arg Asp
 405 410 415
 Glu Leu

<210> 327

<211> 314

<212> PRT

<213> Homo sapiens

<400> 327

Met Asp Ala Phe Lys Gly Gly Met Ser Leu Glu Arg Leu Pro Glu Gly
 1 5 10 15
 Leu Arg Pro Pro Pro Pro Pro His Asp Met Gly Pro Ala Phe His
 20 25 30
 Leu Ala Arg Pro Ala Asp Pro Arg Glu Pro Leu Glu Asn Ser Ala Ser
 35 40 45
 Glu Ser Ser Asp Thr Glu Leu Pro Glu Lys Glu Arg Gly Gly Glu Pro
 50 55 60
 Lys Gly Pro Glu Asp Ser Gly Ala Gly Gly Thr Gly Cys Gly Gly Ala
 65 70 75 80
 Asp Asp Pro Ala Lys Lys Lys Lys Gln Arg Arg Gln Arg Thr His Phe
 85 90 95
 Thr Ser Gln Gln Leu Gln Glu Leu Glu Ala Thr Phe Gln Arg Asn Arg
 100 105 110
 Tyr Pro Asp Met Ser Met Arg Glu Glu Ile Ala Val Trp Thr Asn Leu
 115 120 125
 Thr Glu Pro Arg Val Arg Val Trp Phe Lys Asn Arg Arg Ala Lys Trp
 130 135 140
 Arg Lys Arg Glu Arg Asn Gln Gln Leu Asp Leu Cys Lys Gly Gly Tyr
 145 150 155 160
 Val Pro Gln Phe Ser Gly Leu Val Gln Pro Tyr Glu Asp Val Tyr Ala
 165 170 175
 Ala Gly Tyr Ser Tyr Asn Asn Trp Ala Ala Lys Ser Leu Ala Pro Ala
 180 185 190
 Pro Leu Ser Thr Lys Ser Phe Thr Phe Phe Asn Ser Met Ser Pro Leu
 195 200 205
 Ser Ser Gln Ser Met Phe Ser Ala Pro Ser Ser Ile Ser Ser Met Thr
 210 215 220
 Met Pro Ser Ser Met Gly Pro Gly Ala Val Pro Gly Met Pro Asn Ser
 225 230 235 240
 Gly Leu Asn Asn Ile Asn Asn Leu Thr Gly Ser Ser Leu Asn Ser Ala

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      245      250      255
Met Ser Pro Gly Ala Cys Pro Tyr Gly Thr Pro Ala Ser Pro Tyr Ser
      260      265      270
Val Tyr Arg Asp Thr Cys Asn Ser Ser Leu Ala Ser Leu Arg Leu Lys
      275      280      285
Ser Lys Gln His Ser Ser Phe Gly Tyr Gly Ala Leu Gln Gly Pro Ala
      290      295      300
Ser Gly Leu Asn Ala Cys Gln Tyr Asn Ser
305      310

<210> 328
<211> 2828
<212> PRT
<213> Homo sapiens
<400> 328
Met Pro Lys Arg Ala His Trp Gly Ala Leu Ser Val Val Leu Ile Leu
1      5      10
Leu Trp Gly His Pro Arg Val Ala Leu Ala Cys Pro His Pro Cys Ala
      20      25      30
Cys Tyr Val Pro Ser Glu Val His Cys Thr Phe Arg Ser Leu Ala Ser
      35      40      45
Val Pro Ala Gly Ile Ala Arg His Val Glu Arg Ile Asn Leu Gly Phe
      50      55      60
Asn Ser Ile Gln Ala Leu Ser Glu Thr Ser Phe Ala Gly Leu Thr Lys
      65      70      75
Leu Glu Leu Leu Met Ile His Gly Asn Glu Ile Pro Ser Ile Pro Asp
      85      90      95
Gly Ala Leu Arg Asp Leu Ser Ser Leu Gln Val Phe Lys Phe Ser Tyr
      100      105      110
Asn Lys Leu Arg Val Ile Thr Gly Gln Thr Leu Gln Gly Leu Ser Asn
      115      120      125
Leu Met Arg Leu His Ile Asp His Asn Lys Ile Glu Phe Ile His Pro
      130      135      140
Gln Ala Phe Asn Gly Leu Thr Ser Leu Arg Leu Leu His Leu Glu Gly
      145      150      155
Asn Leu Leu His Gln Leu His Pro Ser Thr Phe Ser Thr Phe Thr Phe
      165      170      175
Leu Asp Tyr Phe Arg Leu Ser Thr Ile Arg His Leu Tyr Leu Ala Glu
      180      185      190
Asn Met Val Arg Thr Leu Pro Ala Ser Met Leu Arg Asn Met Pro Leu
      195      200      205
Leu Glu Asn Leu Tyr Leu Gln Gly Asn Pro Trp Thr Cys Asp Cys Glu
      210      215      220
Met Arg Trp Phe Leu Glu Trp Asp Ala Lys Ser Arg Gly Ile Leu Lys
      225      230      235
Cys Lys Lys Asp Lys Ala Tyr Glu Gly Gly Gln Leu Cys Ala Met Cys
      245      250      255
Phe Ser Pro Lys Lys Leu Tyr Lys His Glu Ile His Lys Leu Lys Asp
      260      265      270
Met Thr Cys Leu Lys Pro Ser Ile Glu Ser Pro Leu Arg Gln Asn Arg
      275      280      285
Ser Arg Ser Ile Glu Glu Glu Gln Glu Gln Glu Asp Gly Gly Ser
      290      295      300
Gln Leu Ile Leu Glu Lys Phe Gln Leu Pro Gln Trp Ser Ile Ser Leu
      305      310      315
Asn Met Thr Asp Glu His Gly Asn Met Val Asn Leu Val Cys Asp Ile
      325      330      335
Lys Lys Pro Met Asp Val Tyr Lys Ile His Leu Asn Gln Thr Asp Pro
      340      345      350
Pro Asp Ile Asp Ile Asn Ala Thr Val Ala Leu Asp Phe Glu Cys Pro
      355      360      365
Met Thr Arg Glu Asn Tyr Glu Lys Leu Trp Lys Leu Ile Ala Tyr Tyr
      370      375      380
Ser Glu Val Pro Val Lys Leu His Arg Glu Leu Met Leu Ser Lys Asp
      385      390      395
Pro Arg Val Ser Tyr Gln Tyr Arg Gln Asp Ala Asp Glu Glu Ala Leu
      405      410      415
Tyr Tyr Thr Gly Val Arg Ala Gln Ile Leu Ala Glu Pro Glu Trp Val
      420      425      430

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Met	Gln	Pro	Ser	Ile	Asp	Ile	Gln	Leu	Asn	Arg	Arg	Gln	Ser	Thr	Ala		
		435					440					445					
Lys	Lys	Val	Leu	Leu	Ser	Tyr	Tyr	Thr	Gln	Tyr	Ser	Gln	Thr	Ile	Ser		
		450					455					460					
Thr	Lys	Asp	Thr	Arg	Gln	Ala	Arg	Gly	Arg	Ser	Trp	Val	Met	Ile	Glu		
465					470					475					480		
Pro	Ser	Gly	Ala	Val	Gln	Arg	Asp	Gln	Thr	Val	Leu	Glu	Gly	Gly	Pro		
				485					490						495		
Cys	Gln	Leu	Ser	Cys	Asn	Val	Lys	Ala	Ser	Glu	Ser	Pro	Ser	Ile	Phe		
			500					505					510				
Trp	Val	Leu	Pro	Asp	Gly	Ser	Ile	Leu	Lys	Ala	Pro	Met	Asp	Asp	Pro		
		515					520					525					
Asp	Ser	Lys	Phe	Ser	Ile	Leu	Ser	Ser	Gly	Trp	Leu	Arg	Ile	Lys	Ser		
		530				535						540					
Met	Glu	Pro	Ser	Asp	Ser	Gly	Leu	Tyr	Gln	Cys	Ile	Ala	Gln	Val	Arg		
545					550					555					560		
Asp	Glu	Met	Asp	Arg	Met	Val	Tyr	Arg	Val	Leu	Val	Gln	Ser	Pro	Ser		
				565					570					575			
Thr	Gln	Pro	Ala	Glu	Lys	Asp	Thr	Val	Thr	Ile	Gly	Lys	Asn	Pro	Gly		
			580					585					590				
Glu	Ser	Val	Thr	Leu	Pro	Cys	Asn	Ala	Leu	Ala	Ile	Pro	Glu	Ala	His		
		595					600					605					
Leu	Ser	Trp	Ile	Leu	Pro	Asn	Arg	Arg	Ile	Ile	Asn	Asp	Leu	Ala	Asn		
		610				615					620						
Thr	Ser	His	Val	Tyr	Met	Leu	Pro	Asn	Gly	Thr	Leu	Ser	Ile	Pro	Lys		
625					630					635					640		
Val	Gln	Val	Ser	Asp	Ser	Gly	Tyr	Tyr	Arg	Cys	Val	Ala	Val	Asn	Gln		
				645					650					655			
Gln	Gly	Ala	Asp	His	Phe	Thr	Val	Gly	Ile	Thr	Val	Thr	Lys	Lys	Gly		
			660					665					670				
Ser	Gly	Leu	Pro	Ser	Lys	Arg	Gly	Arg	Arg	Pro	Gly	Ala	Lys	Ala	Leu		
		675					680					685					
Ser	Arg	Val	Arg	Glu	Asp	Ile	Val	Glu	Asp	Glu	Gly	Gly	Ser	Gly	Met		
		690				695				700							
Gly	Asp	Glu	Glu	Asn	Thr	Ser	Arg	Arg	Leu	Leu	His	Pro	Lys	Asp	Gln		
705					710					715					720		
Glu	Val	Phe	Leu	Lys	Thr	Lys	Asp	Asp	Ala	Ile	Asn	Gly	Asp	Lys	Lys		
			725						730					735			
Ala	Lys	Lys	Gly	Arg	Arg	Lys	Leu	Lys	Leu	Trp	Lys	His	Ser	Glu	Lys		
			740					745					750				
Glu	Pro	Glu	Thr	Asn	Val	Ala	Glu	Gly	Arg	Arg	Val	Phe	Glu	Ser	Arg		
			755				760					765					
Arg	Arg	Ile	Asn	Met	Ala	Asn	Lys	Gln	Ile	Asn	Pro	Glu	Arg	Trp	Ala		
		770				775					780						
Asp	Ile	Leu	Ala	Lys	Val	Arg	Gly	Lys	Asn	Leu	Pro	Lys	Gly	Thr	Glu		
785					790					795					800		
Val	Pro	Pro	Leu	Ile	Lys	Thr	Thr	Ser	Pro	Pro	Ser	Leu	Ser	Leu	Glu		
			805					810						815			
Val	Thr	Pro	Pro	Phe	Pro	Ala	Val	Ser	Pro	Pro	Ser	Ala	Ser	Pro	Val		
			820					825					830				
Gln	Thr	Val	Thr	Ser	Ala	Glu	Glu	Ser	Ser	Ala	Asp	Val	Pro	Leu	Leu		
			835				840					845					
Gly	Glu	Glu	Glu	His	Val	Leu	Gly	Thr	Ile	Ser	Ser	Ala	Ser	Met	Gly		
			850			855					860						
Leu	Glu	His	Asn	His	Asn	Gly	Val	Ile	Leu	Val	Glu	Pro	Glu	Val	Thr		
865					870					875					880		
Ser	Thr	Pro	Leu	Glu	Val	Val	Asp	Asp	Leu	Ser	Glu	Lys	Thr	Glu			
			885					890						895			
Glu	Ile	Thr	Ser	Thr	Glu	Gly	Asp	Leu	Lys	Gly	Thr	Ala	Ala	Pro	Thr		
			900					905					910				
Leu	Ile	Ser	Glu	Pro	Tyr	Glu	Pro	Ser	Pro	Thr	Leu	His	Thr	Leu	Asp		
			915				920						925				
Thr	Val	Tyr	Glu	Lys	Pro	Thr	His	Glu	Glu	Thr	Ala	Thr	Glu	Gly	Trp		
			930			935					940						
Ser	Ala	Ala	Asp	Val	Gly	Ser	Ser	Pro	Glu	Pro	Thr	Ser	Ser	Glu	Tyr		
945					950					955					960		
Glu	Pro	Pro	Leu	Asp	Ala	Val	Ser	Leu	Ala	Glu	Ser	Glu	Pro	Met	Gln		
			965						970					975			
Tyr	Phe	Asp	Pro	Asp	Leu	Glu	Thr	Lys	Ser	Gln	Pro	Asp	Glu	Asp	Lys		

980					985					990						
Met	Lys	Glu	Asp	Thr	Phe	Ala	His	Leu	Thr	Pro	Thr	Pro	Thr	Ile	Trp	
995					1000					1005						
Val	Asn	Asp	Ser	Ser	Thr	Ser	Gln	Leu	Phe	Glu	Asp	Ser	Thr	Ile		
1010					1015					1020						
Gly	Glu	Pro	Gly	Val	Pro	Gly	Gln	Ser	His	Leu	Gln	Gly	Leu	Thr		
1025					1030					1035						
Asp	Asn	Ile	His	Leu	Val	Lys	Ser	Ser	Leu	Ser	Thr	Gln	Asp	Thr		
1040					1045					1050						
Leu	Leu	Ile	Lys	Lys	Gly	Met	Lys	Glu	Met	Ser	Gln	Thr	Leu	Gln		
1055					1060					1065						
Gly	Gly	Asn	Met	Leu	Glu	Gly	Asp	Pro	Thr	His	Ser	Arg	Ser	Ser		
1070					1075					1080						
Glu	Ser	Glu	Gly	Gln	Glu	Ser	Lys	Ser	Ile	Thr	Leu	Pro	Asp	Ser		
1085					1090					1095						
Thr	Leu	Gly	Ile	Met	Ser	Ser	Met	Ser	Pro	Val	Lys	Lys	Pro	Ala		
1100					1105					1110						
Glu	Thr	Thr	Val	Gly	Thr	Leu	Leu	Asp	Lys	Asp	Thr	Thr	Thr	Val		
1115					1120					1125						
Thr	Thr	Thr	Pro	Arg	Gln	Lys	Val	Ala	Pro	Ser	Ser	Thr	Met	Ser		
1130					1135					1140						
Thr	His	Pro	Ser	Arg	Arg	Arg	Pro	Asn	Gly	Arg	Arg	Arg	Leu	Arg		
1145					1150					1155						
Pro	Asn	Lys	Phe	Arg	His	Arg	His	Lys	Gln	Thr	Pro	Pro	Thr	Thr		
1160					1165					1170						
Phe	Ala	Pro	Ser	Glu	Thr	Phe	Ser	Thr	Gln	Pro	Thr	Gln	Ala	Pro		
1175					1180					1185						
Asp	Ile	Lys	Ile	Ser	Ser	Gln	Val	Glu	Ser	Ser	Leu	Val	Pro	Thr		
1190					1195					1200						
Ala	Trp	Val	Asp	Asn	Thr	Val	Asn	Thr	Pro	Lys	Gln	Leu	Glu	Met		
1205					1210					1215						
Glu	Lys	Asn	Ala	Glu	Pro	Thr	Ser	Lys	Gly	Thr	Pro	Arg	Arg	Lys		
1220					1225					1230						
His	Gly	Lys	Arg	Pro	Asn	Lys	His	Arg	Tyr	Thr	Pro	Ser	Thr	Val		
1235					1240					1245						
Ser	Ser	Arg	Ala	Ser	Gly	Ser	Lys	Pro	Ser	Pro	Ser	Pro	Glu	Asn		
1250					1255					1260						
Lys	His	Arg	Asn	Ile	Val	Thr	Pro	Ser	Ser	Glu	Thr	Ile	Leu	Leu		
1265					1270					1275						
Pro	Arg	Thr	Val	Ser	Leu	Lys	Thr	Glu	Gly	Pro	Tyr	Asp	Ser	Leu		
1280					1285					1290						
Asp	Tyr	Met	Thr	Thr	Thr	Arg	Lys	Ile	Tyr	Ser	Ser	Tyr	Pro	Lys		
1295					1300					1305						
Val	Gln	Glu	Thr	Leu	Pro	Val	Thr	Tyr	Lys	Pro	Thr	Ser	Asp	Gly		
1310					1315					1320						
Lys	Glu	Ile	Lys	Asp	Asp	Val	Ala	Thr	Asn	Val	Asp	Lys	His	Lys		
1325					1330					1335						
Ser	Asp	Ile	Leu	Val	Thr	Gly	Glu	Ser	Ile	Thr	Asn	Ala	Ile	Pro		
1340					1345					1350						
Thr	Ser	Arg	Ser	Leu	Val	Ser	Thr	Met	Gly	Glu	Phe	Lys	Glu	Glu		
1355					1360					1365						
Ser	Ser	Pro	Val	Gly	Phe	Pro	Gly	Thr	Pro	Thr	Trp	Asn	Pro	Ser		
1370					1375					1380						
Arg	Thr	Ala	Gln	Pro	Gly	Arg	Leu	Gln	Thr	Asp	Ile	Pro	Val	Thr		
1385					1390					1395						
Thr	Ser	Gly	Glu	Asn	Leu	Thr	Asp	Pro	Pro	Leu	Leu	Lys	Glu	Leu		
1400					1405					1410						
Glu	Asp	Val	Asp	Phe	Thr	Ser	Glu	Phe	Leu	Ser	Ser	Leu	Thr	Val		
1415					1420					1425						
Ser	Thr	Pro	Phe	His	Gln	Glu	Glu	Ala	Gly	Ser	Ser	Thr	Thr	Leu		
1430					1435					1440						
Ser	Ser	Ile	Lys	Val	Glu	Val	Ala	Ser	Ser	Gln	Ala	Glu	Thr	Thr		
1445					1450					1455						
Thr	Leu	Asp	Gln	Asp	His	Leu	Glu	Thr	Thr	Val	Ala	Ile	Leu	Leu		
1460					1465					1470						
Ser	Glu	Thr	Arg	Pro	Gln	Asn	His	Thr	Pro	Thr	Ala	Ala	Arg	Met		
1475					1480					1485						
Lys	Glu	Pro	Ala	Ser	Ser	Ser	Pro	Ser	Thr	Ile	Leu	Met	Ser	Leu		
1490					1495					1500						

Gly	Gln	Thr	Thr	Thr	Thr	Lys	Pro	Ala	Leu	Pro	Ser	Pro	Arg	Ile
1505						1510					1515			
Ser	Gln	Ala	Ser	Arg	Asp	Ser	Lys	Glu	Asn	Val	Phe	Leu	Asn	Tyr
1520						1525					1530			
Val	Gly	Asn	Pro	Glu	Thr	Glu	Ala	Thr	Pro	Val	Asn	Asn	Glu	Gly
1535						1540					1545			
Thr	Gln	His	Met	Ser	Gly	Pro	Asn	Glu	Leu	Ser	Thr	Pro	Ser	Ser
1550						1555					1560			
Asp	Arg	Asp	Ala	Phe	Asn	Leu	Ser	Thr	Lys	Leu	Glu	Leu	Glu	Lys
1565						1570					1575			
Gln	Val	Phe	Gly	Ser	Arg	Ser	Leu	Pro	Arg	Gly	Pro	Asp	Ser	Gln
1580						1585					1590			
Arg	Gln	Asp	Gly	Arg	Val	His	Ala	Ser	His	Gln	Leu	Thr	Arg	Val
1595						1600					1605			
Pro	Ala	Lys	Pro	Ile	Leu	Pro	Thr	Ala	Thr	Val	Arg	Leu	Pro	Glu
1610						1615					1620			
Met	Ser	Thr	Gln	Ser	Ala	Ser	Arg	Tyr	Phe	Val	Thr	Ser	Gln	Ser
1625						1630					1635			
Pro	Arg	His	Trp	Thr	Asn	Lys	Pro	Glu	Ile	Thr	Thr	Tyr	Pro	Ser
1640						1645					1650			
Gly	Ala	Leu	Pro	Glu	Asn	Lys	Gln	Phe	Thr	Thr	Pro	Arg	Leu	Ser
1655						1660					1665			
Ser	Thr	Thr	Ile	Pro	Leu	Pro	Leu	His	Met	Ser	Lys	Pro	Ser	Ile
1670						1675					1680			
Pro	Ser	Lys	Phe	Thr	Asp	Arg	Arg	Thr	Asp	Gln	Phe	Asn	Gly	Tyr
1685						1690					1695			
Ser	Lys	Val	Phe	Gly	Asn	Asn	Asn	Ile	Pro	Glu	Ala	Arg	Asn	Pro
1700						1705					1710			
Val	Gly	Lys	Pro	Pro	Ser	Pro	Arg	Ile	Pro	His	Tyr	Ser	Asn	Gly
1715						1720					1725			
Arg	Leu	Pro	Phe	Phe	Thr	Asn	Lys	Thr	Leu	Ser	Phe	Pro	Gln	Leu
1730						1735					1740			
Gly	Val	Thr	Arg	Arg	Pro	Gln	Ile	Pro	Thr	Ser	Pro	Ala	Pro	Val
1745						1750					1755			
Met	Arg	Glu	Arg	Lys	Val	Ile	Pro	Gly	Ser	Tyr	Asn	Arg	Ile	His
1760						1765					1770			
Ser	His	Ser	Thr	Phe	His	Leu	Asp	Phe	Gly	Pro	Pro	Ala	Pro	Pro
1775						1780					1785			
Leu	Leu	His	Thr	Pro	Gln	Thr	Thr	Gly	Ser	Pro	Ser	Thr	Asn	Leu
1790						1795					1800			
Gln	Asn	Ile	Pro	Met	Val	Ser	Ser	Thr	Gln	Ser	Ser	Ile	Ser	Phe
1805						1810					1815			
Ile	Thr	Ser	Ser	Val	Gln	Ser	Ser	Gly	Ser	Phe	His	Gln	Ser	Ser
1820						1825					1830			
Ser	Lys	Phe	Phe	Ala	Gly	Gly	Pro	Pro	Ala	Ser	Lys	Phe	Trp	Ser
1835						1840					1845			
Leu	Gly	Glu	Lys	Pro	Gln	Ile	Leu	Thr	Lys	Ser	Pro	Gln	Thr	Val
1850						1855					1860			
Ser	Val	Thr	Ala	Glu	Thr	Asp	Thr	Val	Phe	Pro	Cys	Glu	Ala	Thr
1865						1870					1875			
Gly	Lys	Pro	Lys	Pro	Phe	Val	Thr	Trp	Thr	Lys	Val	Ser	Thr	Gly
1880						1885					1890			
Ala	Leu	Met	Thr	Pro	Asn	Thr	Arg	Ile	Gln	Arg	Phe	Glu	Val	Leu
1895						1900					1905			
Lys	Asn	Gly	Thr	Leu	Val	Ile	Arg	Lys	Val	Gln	Val	Gln	Asp	Arg
1910						1915					1920			
Gly	Gln	Tyr	Met	Cys	Thr	Ala	Ser	Asn	Leu	His	Gly	Leu	Asp	Arg
1925						1930					1935			
Met	Val	Val	Leu	Leu	Ser	Val	Thr	Val	Gln	Gln	Pro	Gln	Ile	Leu
1940						1945					1950			
Ala	Ser	His	Tyr	Gln	Asp	Val	Thr	Val	Tyr	Leu	Gly	Asp	Thr	Ile
1955						1960					1965			
Ala	Met	Glu	Cys	Leu	Ala	Lys	Gly	Thr	Pro	Ala	Pro	Gln	Ile	Ser
1970						1975					1980			
Trp	Ile	Phe	Pro	Asp	Arg	Arg	Val	Trp	Gln	Thr	Val	Ser	Pro	Val
1985						1990					1995			
Glu	Ser	Arg	Ile	Thr	Leu	His	Glu	Asn	Arg	Thr	Leu	Ser	Ile	Lys
2000						2005					2010			
Glu	Ala	Ser	Phe	Ser	Asp	Arg	Gly	Val	Tyr	Lys	Cys	Val	Ala	Ser

2015	2020	2025
Asn Ala Ala Gly Ala Asp	Ser Leu Ala Ile Arg	Leu His Val Ala
2030	2035	2040
Ala Leu Pro Pro Val Ile	His Gln Glu Lys Leu	Glu Asn Ile Ser
2045	2050	2055
Leu Pro Pro Gly Leu Ser	Ile His Ile His Cys	Thr Ala Lys Ala
2060	2065	2070
Ala Pro Leu Pro Ser Val	Arg Trp Val Leu Gly	Asp Gly Thr Gln
2075	2080	2085
Ile Arg Pro Ser Gln Phe	Leu His Gly Asn Leu	Phe Val Phe Pro
2090	2095	2100
Asn Gly Thr Leu Tyr Ile	Arg Asn Leu Ala Pro	Lys Asp Ser Gly
2105	2110	2115
Arg Tyr Glu Cys Val Ala	Ala Asn Leu Val Gly	Ser Ala Arg Arg
2120	2125	2130
Thr Val Gln Leu Asn Val	Gln Arg Ala Ala Ala	Asn Ala Arg Ile
2135	2140	2145
Thr Gly Thr Ser Pro Arg	Arg Thr Asp Val Arg	Tyr Gly Gly Thr
2150	2155	2160
Leu Lys Leu Asp Cys Ser	Ala Ser Gly Asp Pro	Trp Pro Arg Ile
2165	2170	2175
Leu Trp Arg Leu Pro Ser	Lys Arg Met Ile Asp	Ala Leu Phe Ser
2180	2185	2190
Phe Asp Ser Arg Ile Lys	Val Phe Ala Asn Gly	Thr Leu Val Val
2195	2200	2205
Lys Ser Val Thr Asp Lys	Asp Ala Gly Asp Tyr	Leu Cys Val Ala
2210	2215	2220
Arg Asn Lys Val Gly Asp	Asp Tyr Val Val Leu	Lys Val Asp Val
2225	2230	2235
Val Met Lys Pro Ala Lys	Ile Glu His Lys Glu	Glu Asn Asp His
2240	2245	2250
Lys Val Phe Tyr Gly Gly	Asp Leu Lys Val Asp	Cys Val Ala Thr
2255	2260	2265
Gly Leu Pro Asn Pro Glu	Ile Ser Trp Ser Leu	Pro Asp Gly Ser
2270	2275	2280
Leu Val Asn Ser Phe Met	Gln Ser Asp Asp Ser	Gly Gly Arg Thr
2285	2290	2295
Lys Arg Tyr Val Val Phe	Asn Asn Gly Thr Leu	Tyr Phe Asn Glu
2300	2305	2310
Val Gly Met Arg Glu Glu	Gly Asp Tyr Thr Cys	Phe Ala Glu Asn
2315	2320	2325
Gln Val Gly Lys Asp Glu	Met Arg Val Arg Val	Lys Val Val Thr
2330	2335	2340
Ala Pro Ala Thr Ile Arg	Asn Lys Thr Tyr Leu	Ala Val Gln Val
2345	2350	2355
Pro Tyr Gly Asp Val Val	Thr Val Ala Cys Glu	Ala Lys Gly Glu
2360	2365	2370
Pro Met Pro Lys Val Thr	Trp Leu Ser Pro Thr	Asn Lys Val Ile
2375	2380	2385
Pro Thr Ser Ser Glu Lys	Tyr Gln Ile Tyr Gln	Asp Gly Thr Leu
2390	2395	2400
Leu Ile Gln Lys Ala Gln	Arg Ser Asp Ser Gly	Asn Tyr Thr Cys
2405	2410	2415
Leu Val Arg Asn Ser Ala	Gly Glu Asp Arg Lys	Thr Val Trp Ile
2420	2425	2430
His Val Asn Val Gln Pro	Pro Lys Ile Asn Gly	Asn Pro Asn Pro
2435	2440	2445
Ile Thr Thr Val Arg Glu	Ile Ala Ala Gly Gly	Ser Arg Lys Leu
2450	2455	2460
Ile Asp Cys Lys Ala Glu	Gly Ile Pro Thr Pro	Arg Val Leu Trp
2465	2470	2475
Ala Phe Pro Glu Gly Val	Val Leu Pro Ala Pro	Tyr Tyr Gly Asn
2480	2485	2490
Arg Ile Thr Val His Gly	Asn Gly Ser Leu Asp	Ile Arg Ser Leu
2495	2500	2505
Arg Lys Ser Asp Ser Val	Gln Leu Val Cys Met	Ala Arg Asn Glu
2510	2515	2520
Gly Gly Glu Ala Arg Leu	Ile Val Gln Leu Thr	Val Leu Glu Pro
2525	2530	2535

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Met Glu  Lys Pro Ile Phe His  Asp Pro Ile Ser Glu  Lys Ile Thr
2540                2545                2550
Ala Met  Ala Gly His Thr Ile  Ser Leu Asn Cys Ser  Ala Ala Gly
2555                2560                2565
Thr Pro  Thr Pro Ser Leu Val Trp Val Leu Pro Asn  Gly Thr Asp
2570                2575                2580
Leu Gln  Ser Gly Gln Gln Leu  Gln Arg Phe Tyr His  Lys Ala Asp
2585                2590                2595
Gly Met  Leu His Ile Ser Gly  Leu Ser Ser Val Asp  Ala Gly Ala
2600                2605                2610
Tyr Arg  Cys Val Ala Arg Asn  Ala Ala Gly His Thr  Glu Arg Leu
2615                2620                2625
Val Ser  Leu Lys Val Gly Leu  Lys Pro Glu Ala Asn  Lys Gln Tyr
2630                2635                2640
His Asn  Leu Val Ser Ile Ile  Asn Gly Glu Thr Leu  Lys Leu Pro
2645                2650                2655
Cys Thr  Pro Pro Gly Ala Gly  Gln Gly Arg Phe Ser  Trp Thr Leu
2660                2665                2670
Pro Asn  Gly Met His Leu Glu  Gly Pro Gln Thr Leu  Gly Arg Val
2675                2680                2685
Ser Leu  Leu Asp Asn Gly Thr  Leu Thr Val Arg Glu  Ala Ser Val
2690                2695                2700
Phe Asp  Arg Gly Thr Tyr Val  Cys Arg Met Glu Thr  Glu Tyr Gly
2705                2710                2715
Pro Ser  Val Thr Ser Ile Pro  Val Ile Val Ile Ala  Tyr Pro Pro
2720                2725                2730
Arg Ile  Thr Ser Glu Pro Thr  Pro Val Ile Tyr Thr  Arg Pro Gly
2735                2740                2745
Asn Thr  Val Lys Leu Asn Cys  Met Ala Met Gly Ile  Pro Lys Ala
2750                2755                2760
Asp Ile  Thr Trp Glu Leu Pro  Asp Lys Ser His Leu  Lys Ala Gly
2765                2770                2775
Val Gln  Ala Arg Leu Tyr Gly  Asn Arg Phe Leu His  Pro Gln Gly
2780                2785                2790
Ser Leu  Thr Ile Gln His Ala  Thr Gln Arg Asp Ala  Gly Phe Tyr
2795                2800                2805
Lys Cys  Met Ala Lys Asn Ile  Leu Gly Ser Asp Ser  Lys Thr Thr
2810                2815                2820
Tyr Ile  His Val Phe
2825

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<210> 329

<211> 426

<212> PRT

<213> Homo sapiens

<400> 329

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Met Pro Leu Leu Trp Leu Arg Gly Phe Leu Leu Ala Ser Cys Trp Ile
1      5      10      15
Ile Val Arg Ser Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala
20     25     30
Pro Asp Cys Pro Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro
35     40     45
Asn Ser Gln Pro Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn
50     55     60
Met Leu His Leu Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys
65     70     75     80
Ala Ala Leu Leu Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly
85     90     95
Glu Asn Gly Tyr Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu
100    105    110
Met Asn Glu Leu Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu
115    120    125
Ser Gly Thr Ala Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly
130    135    140
Ser Asp Leu Ser Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys
145    150    155    160
Val Pro Lys Ala Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe
165    170    175
Gln Gln Gln Lys His Pro Gln Gly Ser Leu Asp Thr Gly Glu Glu Ala

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      180      185      190
Glu Glu Val Gly Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu
      195      200      205
Lys Val Val Asp Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser
      210      215      220
Ser Ser Ile Gln Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val
      225      230      235
Arg Ile Ala Cys Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu
      245      250      255
Leu Gly Lys Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys
      260      265      270
Gly Gly Gly Glu Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser
      275      280      285
His Arg Pro Phe Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro
      290      295      300
His Arg Arg Arg Arg Arg Gly Leu Glu Cys Asp Gly Lys Val Asn Ile
      305      310      315
Cys Cys Lys Lys Gln Phe Phe Val Ser Phe Lys Asp Ile Gly Trp Asn
      325      330      335
Asp Trp Ile Ile Ala Pro Ser Gly Tyr His Ala Asn Tyr Cys Glu Gly
      340      345      350
Glu Cys Pro Ser His Ile Ala Gly Thr Ser Gly Ser Ser Leu Ser Phe
      355      360      365
His Ser Thr Val Ile Asn His Tyr Arg Met Arg Gly His Ser Pro Phe
      370      375      380
Ala Asn Leu Lys Ser Cys Cys Val Pro Thr Lys Leu Arg Pro Met Ser
      385      390      395
Met Leu Tyr Tyr Asp Asp Gly Gln Asn Ile Ile Lys Lys Asp Ile Gln
      405      410      415
Asn Met Ile Val Glu Glu Cys Gly Cys Ser
      420      425

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<210> 330

<211> 6792

<212> PRT

<213> Homo sapiens

<400> 330

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Met Phe Ile Asn Ile Lys Ser Ile Leu Trp Met Cys Ser Thr Leu Ile
1      5      10      15
Val Thr His Ala Leu His Lys Val Lys Val Gly Lys Ser Pro Pro Val
      20      25      30
Arg Gly Ser Leu Ser Gly Lys Val Ser Leu Pro Cys His Phe Ser Thr
      35      40      45
Met Pro Thr Leu Pro Pro Ser Tyr Asn Thr Ser Glu Phe Leu Arg Ile
      50      55      60
Lys Trp Ser Lys Ile Glu Val Asp Lys Asn Gly Lys Asp Leu Lys Glu
      65      70      75      80
Thr Thr Val Leu Val Ala Gln Asn Gly Asn Ile Lys Ile Gly Gln Asp
      85      90      95
Tyr Lys Gly Arg Val Ser Val Pro Thr His Pro Glu Ala Val Gly Asp
      100      105      110
Ala Ser Leu Thr Val Val Lys Leu Leu Ala Ser Asp Ala Gly Leu Tyr
      115      120      125
Arg Cys Asp Val Met Tyr Gly Ile Glu Asp Thr Gln Asp Thr Val Ser
      130      135      140
Leu Thr Val Asp Gly Val Val Phe His Tyr Arg Ala Ala Thr Ser Arg
      145      150      155      160
Tyr Thr Leu Asn Phe Glu Ala Ala Gln Lys Ala Cys Leu Asp Val Gly
      165      170      175
Ala Val Ile Ala Thr Pro Glu Gln Leu Phe Ala Ala Tyr Glu Asp Gly
      180      185      190
Phe Glu Gln Cys Asp Ala Gly Trp Leu Ala Asp Gln Thr Val Arg Tyr
      195      200      205
Pro Ile Arg Ala Pro Arg Val Gly Cys Tyr Gly Asp Lys Met Gly Lys
      210      215      220
Ala Gly Val Arg Thr Tyr Gly Phe Arg Ser Pro Gln Glu Thr Tyr Asp
      225      230      235      240
Val Tyr Cys Tyr Val Asp His Leu Asp Gly Asp Val Phe His Leu Thr
      245      250      255

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Val	Pro	Ser	Lys	Phe	Thr	Phe	Glu	Glu	Ala	Ala	Lys	Glu	Cys	Glu	Asn
			260					265					270		
Gln	Asp	Ala	Arg	Leu	Ala	Thr	Val	Gly	Glu	Leu	Gln	Ala	Ala	Trp	Arg
			275					280					285		
Asn	Gly	Phe	Asp	Gln	Cys	Asp	Tyr	Gly	Trp	Leu	Ser	Asp	Ala	Ser	Val
	290					295					300				
Arg	His	Pro	Val	Thr	Val	Ala	Arg	Ala	Gln	Cys	Gly	Gly	Gly	Leu	Leu
305					310					315					320
Gly	Val	Arg	Thr	Leu	Tyr	Arg	Phe	Glu	Asn	Gln	Thr	Gly	Phe	Pro	Pro
				325					330					335	
Pro	Asp	Ser	Arg	Phe	Asp	Ala	Tyr	Cys	Phe	Lys	Pro	Lys	Glu	Ala	Thr
			340					345					350		
Thr	Ile	Asp	Leu	Ser	Ile	Leu	Ala	Glu	Thr	Ala	Ser	Pro	Ser	Leu	Ser
		355					360						365		
Lys	Glu	Pro	Gln	Met	Val	Ser	Asp	Arg	Thr	Thr	Pro	Ile	Ile	Pro	Leu
	370					375					380				
Val	Asp	Glu	Leu	Pro	Val	Ile	Pro	Thr	Glu	Phe	Pro	Pro	Val	Gly	Asn
385					390					395					400
Ile	Val	Ser	Phe	Glu	Gln	Lys	Ala	Thr	Val	Gln	Pro	Gln	Ala	Ile	Thr
			405						410					415	
Asp	Ser	Leu	Ala	Thr	Lys	Leu	Pro	Thr	Pro	Thr	Gly	Ser	Thr	Lys	Lys
			420					425					430		
Pro	Trp	Asp	Met	Asp	Asp	Tyr	Ser	Pro	Ser	Ala	Ser	Gly	Pro	Leu	Gly
		435				440						445			
Lys	Leu	Asp	Ile	Ser	Glu	Ile	Lys	Glu	Glu	Val	Leu	Gln	Ser	Thr	Thr
	450					455					460				
Gly	Val	Ser	His	Tyr	Ala	Thr	Asp	Ser	Trp	Asp	Gly	Val	Val	Glu	Asp
465					470					475					480
Lys	Gln	Thr	Gln	Glu	Ser	Val	Thr	Gln	Ile	Glu	Gln	Ile	Glu	Val	Gly
			485						490					495	
Pro	Leu	Val	Thr	Ser	Met	Glu	Ile	Leu	Lys	His	Ile	Pro	Ser	Lys	Glu
			500					505					510		
Phe	Pro	Val	Thr	Glu	Thr	Pro	Leu	Val	Thr	Ala	Arg	Met	Ile	Leu	Glu
		515					520					525			
Ser	Lys	Thr	Glu	Lys	Lys	Met	Val	Ser	Thr	Val	Ser	Glu	Leu	Val	Thr
	530					535					540				
Thr	Gly	His	Tyr	Gly	Phe	Thr	Leu	Gly	Glu	Glu	Asp	Asp	Glu	Asp	Arg
545					550					555					560
Thr	Leu	Thr	Val	Gly	Ser	Asp	Glu	Ser	Thr	Leu	Ile	Phe	Asp	Gln	Ile
			565						570					575	
Pro	Glu	Val	Ile	Thr	Val	Ser	Lys	Thr	Ser	Glu	Asp	Thr	Ile	His	Thr
			580					585					590		
His	Leu	Glu	Asp	Leu	Glu	Ser	Val	Ser	Ala	Ser	Thr	Thr	Val	Ser	Pro
	595						600					605			
Leu	Ile	Met	Pro	Asp	Asn	Asn	Gly	Ser	Ser	Met	Asp	Asp	Trp	Glu	Glu
	610					615					620				
Arg	Gln	Thr	Ser	Gly	Arg	Ile	Thr	Glu	Glu	Phe	Leu	Gly	Lys	Tyr	Leu
625					630					635					640
Ser	Thr	Thr	Pro	Phe	Pro	Ser	Gln	His	Arg	Thr	Glu	Ile	Glu	Leu	Phe
			645						650					655	
Pro	Tyr	Ser	Gly	Asp	Lys	Ile	Leu	Val	Glu	Gly	Ile	Ser	Thr	Val	Ile
			660					665					670		
Tyr	Pro	Ser	Leu	Gln	Thr	Glu	Met	Thr	His	Arg	Arg	Glu	Arg	Thr	Glu
		675					680						685		
Thr	Leu	Ile	Pro	Glu	Met	Arg	Thr	Asp	Thr	Tyr	Thr	Asp	Glu	Ile	Gln
	690					695						700			
Glu	Glu	Ile	Thr	Lys	Ser	Pro	Phe	Met	Gly	Lys	Thr	Glu	Glu	Glu	Val
705					710					715					720
Phe	Ser	Gly	Met	Lys	Leu	Ser	Thr	Ser	Leu	Ser	Glu	Pro	Ile	His	Val
			725						730					735	
Thr	Glu	Ser	Ser	Val	Glu	Met	Thr	Lys	Ser	Phe	Asp	Phe	Pro	Thr	Leu
			740					745					750		
Ile	Thr	Lys	Leu	Ser	Ala	Glu	Pro	Thr	Glu	Val	Arg	Asp	Met	Glu	Glu
		755					760					765			
Asp	Phe	Thr	Ala	Thr	Pro	Gly	Thr	Thr	Lys	Tyr	Asp	Glu	Asn	Ile	Thr
	770					775					780				
Thr	Val	Leu	Leu	Ala	His	Gly	Thr	Leu	Ser	Val	Glu	Ala	Ala	Thr	Val
785					790					795					800
Ser	Lys	Trp	Ser	Trp	Asp	Glu	Asp	Asn	Thr	Thr	Ser	Lys	Pro	Leu	Glu

- 398 -

Asp	Leu	Ser	Val	Ile	Gly	His	Pro	Ile	Asp	Ser	Glu	Ser	Lys	Glu
1340						1345					1350			
Asp	Glu	Pro	Cys	Ser	Glu	Glu	Thr	Asp	Pro	Val	His	Asp	Leu	Met
1355						1360					1365			
Ala	Glu	Ile	Leu	Pro	Glu	Phe	Pro	Asp	Ile	Ile	Glu	Ile	Asp	Leu
1370						1375					1380			
Tyr	His	Ser	Glu	Glu	Asn	Glu	Glu	Glu	Glu	Glu	Glu	Cys	Ala	Asn
1385						1390					1395			
Ala	Thr	Asp	Val	Thr	Thr	Thr	Pro	Ser	Val	Gln	Tyr	Ile	Asn	Gly
1400						1405					1410			
Lys	His	Leu	Val	Thr	Thr	Val	Pro	Lys	Asp	Pro	Glu	Ala	Ala	Glu
1415						1420					1425			
Ala	Arg	Arg	Gly	Gln	Phe	Glu	Ser	Val	Ala	Pro	Ser	Gln	Asn	Phe
1430						1435					1440			
Ser	Asp	Ser	Ser	Glu	Ser	Asp	Thr	His	Pro	Phe	Val	Ile	Ala	Lys
1445						1450					1455			
Thr	Glu	Leu	Ser	Thr	Ala	Val	Gln	Pro	Asn	Glu	Ser	Thr	Glu	Thr
1460						1465					1470			
Thr	Glu	Ser	Leu	Glu	Val	Thr	Trp	Lys	Pro	Glu	Thr	Tyr	Pro	Glu
1475						1480					1485			
Thr	Ser	Glu	His	Phe	Ser	Gly	Gly	Glu	Pro	Asp	Val	Phe	Pro	Thr
1490						1495					1500			
Val	Pro	Phe	His	Glu	Glu	Phe	Glu	Ser	Gly	Thr	Ala	Lys	Lys	Gly
1505						1510					1515			
Ala	Glu	Ser	Val	Thr	Glu	Arg	Asp	Thr	Glu	Val	Gly	His	Gln	Ala
1520						1525					1530			
His	Glu	His	Thr	Glu	Pro	Val	Ser	Leu	Phe	Pro	Glu	Glu	Ser	Ser
1535						1540					1545			
Gly	Glu	Ile	Ala	Ile	Asp	Gln	Glu	Ser	Gln	Lys	Ile	Ala	Phe	Ala
1550						1555					1560			
Arg	Ala	Thr	Glu	Val	Thr	Phe	Gly	Glu	Glu	Val	Glu	Lys	Ser	Thr
1565						1570					1575			
Ser	Val	Thr	Tyr	Thr	Pro	Thr	Ile	Val	Pro	Ser	Ser	Ala	Ser	Ala
1580						1585					1590			
Tyr	Val	Ser	Glu	Glu	Glu	Ala	Val	Thr	Leu	Ile	Gly	Asn	Pro	Trp
1595						1600					1605			
Pro	Asp	Asp	Leu	Leu	Ser	Thr	Lys	Glu	Ser	Trp	Val	Glu	Ala	Thr
1610						1615					1620			
Pro	Arg	Gln	Val	Val	Glu	Leu	Ser	Gly	Ser	Ser	Ser	Ile	Pro	Ile
1625						1630					1635			
Thr	Glu	Gly	Ser	Gly	Glu	Ala	Glu	Glu	Asp	Glu	Asp	Thr	Met	Phe
1640						1645					1650			
Thr	Met	Val	Thr	Asp	Leu	Ser	Gln	Arg	Asn	Thr	Thr	Asp	Thr	Leu
1655						1660					1665			
Ile	Thr	Leu	Asp	Thr	Ser	Arg	Ile	Ile	Thr	Glu	Ser	Phe	Phe	Glu
1670						1675					1680			
Val	Pro	Ala	Thr	Thr	Ile	Tyr	Pro	Val	Ser	Glu	Gln	Pro	Ser	Ala
1685						1690					1695			
Lys	Val	Val	Pro	Thr	Lys	Phe	Val	Ser	Glu	Thr	Asp	Thr	Ser	Glu
1700						1705					1710			
Trp	Ile	Ser	Ser	Thr	Thr	Val	Glu	Glu	Lys	Lys	Arg	Lys	Glu	Glu
1715						1720					1725			
Glu	Gly	Thr	Thr	Gly	Thr	Ala	Ser	Thr	Phe	Glu	Val	Tyr	Ser	Ser
1730						1735					1740			
Thr	Gln	Arg	Ser	Asp	Gln	Leu	Ile	Leu	Pro	Phe	Glu	Leu	Glu	Ser
1745						1750					1755			
Pro	Asn	Val	Ala	Thr	Ser	Ser	Asp	Ser	Gly	Thr	Arg	Lys	Ser	Phe
1760						1765					1770			
Met	Ser	Leu	Thr	Thr	Pro	Thr	Gln	Ser	Glu	Arg	Glu	Met	Thr	Asp
1775						1780					1785			
Ser	Thr	Pro	Val	Phe	Thr	Glu	Thr	Asn	Thr	Leu	Glu	Asn	Leu	Gly
1790						1795					1800			
Ala	Gln	Thr	Thr	Glu	His	Ser	Ser	Ile	His	Gln	Pro	Gly	Val	Gln
1805						1810					1815			
Glu	Gly	Leu	Thr	Thr	Leu	Pro	Arg	Ser	Pro	Ala	Ser	Val	Phe	Met
1820						1825					1830			
Glu	Gln	Gly	Ser	Gly	Glu	Ala	Ala	Ala	Asp	Pro	Glu	Thr	Thr	Thr
1835						1840					1845			
Val	Ser	Ser	Phe	Ser	Leu	Asn	Val	Glu	Tyr	Ala	Ile	Gln	Ala	Glu

1850	Lys Glu Val Ala Gly Thr	1855	Leu Ser Pro His Val	1860	Glu Thr Thr Phe
1865	Ser Thr Glu Pro Thr Gly	1870	Leu Val Leu Ser Thr	1875	Val Met Asp Arg
1880	Val Val Ala Glu Asn Ile	1885	Thr Gln Thr Ser Arg	1890	Glu Ile Val Ile
1895	Ser Glu Arg Leu Gly Glu	1900	Pro Asn Tyr Gly Ala	1905	Glu Ile Arg Gly
1910	Phe Ser Thr Gly Phe Pro	1915	Leu Glu Glu Asp Phe	1920	Ser Gly Asp Phe
1925	Arg Glu Tyr Ser Thr Val	1930	Ser His Pro Ile Ala	1935	Lys Glu Glu Thr
1940	Val Met Met Glu Gly Ser	1945	Gly Asp Ala Ala Phe	1950	Arg Asp Thr Gln
1955	Thr Ser Pro Ser Thr Val	1960	Pro Thr Ser Val His	1965	Ile Ser His Ile
1970	Ser Asp Ser Glu Gly Pro	1975	Ser Ser Thr Met Val	1980	Ser Thr Ser Ala
1985	Phe Pro Trp Glu Glu Phe	1990	Thr Ser Ser Ala Glu	1995	Gly Ser Gly Glu
2000	Gln Leu Val Thr Val Ser	2005	Ser Ser Val Val Pro	2010	Val Leu Pro Ser
2015	Ala Val Gln Lys Phe Ser	2020	Gly Thr Ala Ser Ser	2025	Ile Ile Asp Glu
2030	Gly Leu Gly Glu Val Gly	2035	Thr Val Asn Glu Ile	2040	Asp Arg Arg Ser
2045	Thr Ile Leu Pro Thr Ala	2050	Glu Val Glu Gly Thr	2055	Lys Ala Pro Val
2060	Glu Lys Glu Glu Val Lys	2065	Val Ser Gly Thr Val	2070	Ser Thr Asn Phe
2075	Pro Gln Thr Ile Glu Pro	2080	Lys Leu Trp Ser	2085	Arg Gln Glu Val
2090	Asn Pro Val Arg Gln Glu	2095	Ile Glu Ser Glu Thr	2100	Thr Ser Glu Glu
2105	Gln Ile Gln Glu Glu Lys	2110	Ser Phe Glu Ser Pro	2115	Gln Asn Ser Pro
2120	Ala Thr Glu Gln Thr Ile	2125	Phe Asp Ser Gln Thr	2130	Phe Thr Glu Thr
2135	Glu Leu Lys Thr Thr Asp	2140	Tyr Ser Val Leu Thr	2145	Thr Lys Lys Thr
2150	Tyr Ser Asp Asp Lys Glu	2155	Met Lys Glu Glu Asp	2160	Thr Ser Leu Val
2165	Asn Met Ser Thr Pro Asp	2170	Pro Asp Ala Asn Gly	2175	Leu Glu Ser Tyr
2180	Thr Thr Leu Pro Glu Ala	2185	Thr Glu Lys Ser His	2190	Phe Phe Leu Ala
2195	Thr Ala Leu Val Thr Glu	2200	Ser Ile Pro Ala Glu	2205	His Val Val Thr
2210	Asp Ser Pro Ile Lys Lys	2215	Glu Glu Ser Thr Lys	2220	His Phe Pro Lys
2225	Gly Met Arg Pro Thr Ile	2230	Gln Glu Ser Asp Thr	2235	Glu Leu Leu Phe
2240	Ser Gly Leu Gly Ser Gly	2245	Glu Glu Val Leu Pro	2250	Thr Leu Pro Thr
2255	Glu Ser Val Asn Phe Thr	2260	Glu Val Glu Gln Ile	2265	Asn Asn Thr Leu
2270	Tyr Pro His Thr Ser Gln	2275	Val Glu Ser Thr Ser	2280	Ser Asp Lys Ile
2285	Glu Asp Phe Asn Arg Met	2290	Glu Asn Val Ala Lys	2295	Glu Val Gly Pro
2300	Leu Val Ser Gln Thr Asp	2305	Ile Phe Glu Gly Ser	2310	Gly Ser Val Thr
2315	Ser Thr Thr Leu Ile Glu	2320	Ile Leu Ser Asp Thr	2325	Gly Ala Glu Gly
2330	Pro Thr Val Ala Pro Leu	2335	Pro Phe Ser Thr Asp	2340	Ile Gly His Pro
2345	Gln Asn Gln Thr Val Arg	2350	Trp Ala Glu Glu Ile	2355	Gln Thr Ser Arg
2360		2365		2370	

Pro	Gln	Thr	Ile	Thr	Glu	Gln	Asp	Ser	Asn	Lys	Asn	Ser	Ser	Thr
	2375					2380					2385			
Ala	Glu	Ile	Asn	Glu	Thr	Thr	Thr	Ser	Ser	Thr	Asp	Phe	Leu	Ala
	2390					2395					2400			
Arg	Ala	Tyr	Gly	Phe	Glu	Met	Ala	Lys	Glu	Phe	Val	Thr	Ser	Ala
	2405					2410					2415			
Pro	Lys	Pro	Ser	Asp	Leu	Tyr	Tyr	Glu	Pro	Ser	Gly	Glu	Gly	Ser
	2420					2425					2430			
Gly	Glu	Val	Asp	Ile	Val	Asp	Ser	Phe	His	Thr	Ser	Ala	Thr	Thr
	2435					2440					2445			
Gln	Ala	Thr	Arg	Gln	Glu	Ser	Ser	Thr	Thr	Phe	Val	Ser	Asp	Gly
	2450					2455					2460			
Ser	Leu	Glu	Lys	His	Pro	Glu	Val	Pro	Ser	Ala	Lys	Ala	Val	Thr
	2465					2470					2475			
Ala	Asp	Gly	Phe	Pro	Thr	Val	Ser	Val	Met	Leu	Pro	Leu	His	Ser
	2480					2485					2490			
Glu	Gln	Asn	Lys	Ser	Ser	Pro	Asp	Pro	Thr	Ser	Thr	Leu	Ser	Asn
	2495					2500					2505			
Thr	Val	Ser	Tyr	Glu	Arg	Ser	Thr	Asp	Gly	Ser	Phe	Gln	Asp	Arg
	2510					2515					2520			
Phe	Arg	Glu	Phe	Glu	Asp	Ser	Thr	Leu	Lys	Pro	Asn	Arg	Lys	Lys
	2525					2530					2535			
Pro	Thr	Glu	Asn	Ile	Ile	Ile	Asp	Leu	Asp	Lys	Glu	Asp	Lys	Asp
	2540					2545					2550			
Leu	Ile	Leu	Thr	Ile	Thr	Glu	Ser	Thr	Ile	Leu	Glu	Ile	Leu	Pro
	2555					2560					2565			
Glu	Leu	Thr	Ser	Asp	Lys	Asn	Thr	Ile	Ile	Asp	Ile	Asp	His	Thr
	2570					2575					2580			
Lys	Pro	Val	Tyr	Glu	Asp	Ile	Leu	Gly	Met	Gln	Thr	Asp	Ile	Asp
	2585					2590					2595			
Thr	Glu	Val	Pro	Ser	Glu	Pro	His	Asp	Ser	Asn	Asp	Glu	Ser	Asn
	2600					2605					2610			
Asp	Asp	Ser	Thr	Gln	Val	Gln	Glu	Ile	Tyr	Glu	Ala	Ala	Val	Asn
	2615					2620					2625			
Leu	Ser	Leu	Thr	Glu	Glu	Thr	Phe	Glu	Gly	Ser	Ala	Asp	Val	Leu
	2630					2635					2640			
Ala	Ser	Tyr	Thr	Gln	Ala	Thr	His	Asp	Glu	Ser	Met	Thr	Tyr	Glu
	2645					2650					2655			
Asp	Arg	Ser	Gln	Leu	Asp	His	Met	Gly	Phe	His	Phe	Thr	Thr	Gly
	2660					2665					2670			
Ile	Pro	Ala	Pro	Ser	Thr	Glu	Thr	Glu	Leu	Asp	Val	Leu	Leu	Pro
	2675					2680					2685			
Thr	Ala	Thr	Ser	Leu	Pro	Ile	Pro	Arg	Lys	Ser	Ala	Thr	Val	Ile
	2690					2695					2700			
Pro	Glu	Ile	Glu	Gly	Ile	Lys	Ala	Glu	Ala	Lys	Ala	Leu	Asp	Asp
	2705					2710					2715			
Met	Phe	Glu	Ser	Ser	Thr	Leu	Ser	Asp	Gly	Gln	Ala	Ile	Ala	Asp
	2720					2725					2730			
Gln	Ser	Glu	Ile	Ile	Pro	Thr	Leu	Gly	Gln	Phe	Glu	Arg	Thr	Gln
	2735					2740					2745			
Glu	Glu	Tyr	Glu	Asp	Lys	Lys	His	Ala	Gly	Pro	Ser	Phe	Gln	Pro
	2750					2755					2760			
Glu	Phe	Ser	Ser	Gly	Ala	Glu	Glu	Ala	Leu	Val	Asp	His	Thr	Pro
	2765					2770					2775			
Tyr	Leu	Ser	Ile	Ala	Thr	Thr	His	Leu	Met	Asp	Gln	Ser	Val	Thr
	2780					2785					2790			
Glu	Val	Pro	Asp	Val	Met	Glu	Gly	Ser	Asn	Pro	Pro	Tyr	Tyr	Thr
	2795					2800					2805			
Asp	Thr	Thr	Leu	Ala	Val	Ser	Thr	Phe	Ala	Lys	Leu	Ser	Ser	Gln
	2810					2815					2820			
Thr	Pro	Ser	Ser	Pro	Leu	Thr	Ile	Tyr	Ser	Gly	Ser	Glu	Ala	Ser
	2825					2830					2835			
Gly	His	Thr	Glu	Ile	Pro	Gln	Pro	Ser	Ala	Leu	Pro	Gly	Ile	Asp
	2840					2845					2850			
Val	Gly	Ser	Ser	Val	Met	Ser	Pro	Gln	Asp	Ser	Phe	Lys	Glu	Ile
	2855					2860					2865			
His	Val	Asn	Ile	Glu	Ala	Thr	Phe	Lys	Pro	Ser	Ser	Glu	Glu	Tyr
	2870					2875					2880			
Leu	His	Ile	Thr	Glu	Pro	Pro	Ser	Leu	Ser	Pro	Asp	Thr	Lys	Leu

2885	Glu Pro Ser Glu Asp Asp	2890	Gly Lys Pro Glu Leu	2895	Leu Glu Glu Met
2900	Glu Ala Ser Pro Thr Glu	2905	Ile Ala Val Glu	2910	Thr Glu Ile
2915	Leu Gln Asp Phe Gln Asn	2920	Thr Asp Gly Gln	2925	Val Ser Gly Glu
2930	Ala Ile Lys Met Phe Pro	2935	Ile Lys Thr Pro	2940	Glu Ala Gly Thr
2945	Val Ile Thr Thr Ala Asp	2950	Ile Glu Leu Glu	2955	Gly Ala Thr Gln
2960	Trp Pro His Ser Thr Ser	2965	Ala Ser Ala Thr Tyr	2970	Gly Val Glu Ala
2975	Gly Val Val Pro Trp Leu	2980	Pro Gln Thr Ser	2985	Glu Arg Pro Thr
2990	Leu Ser Ser Ser Pro Glu	2995	Ile Asn Pro Glu Thr	3000	Gln Ala Ala Leu
3005	Ile Arg Gly Gln Asp Ser	3010	Ile Ala Ala Ser	3015	Glu Gln Gln Val
3020	Ala Ala Arg Ile Leu Asp	3025	Ser Asn Asp Gln Ala	3030	Thr Val Asn Pro
3035	Val Glu Phe Asn Thr Glu	3040	Val Ala Thr Pro Pro	3045	Phe Ser Leu Leu
3050	Glu Thr Ser Asn Glu Thr	3055	Asp Phe Leu Ile Gly	3060	Ile Asn Glu Glu
3065	Ser Val Glu Gly Thr Ala	3070	Ile Tyr Leu Pro Gly	3075	Pro Asp Arg Cys
3080	Lys Met Asn Pro Cys Leu	3085	Asn Gly Gly Thr Cys	3090	Tyr Pro Thr Glu
3095	Thr Ser Tyr Val Cys Thr	3100	Cys Val Pro Gly Tyr	3105	Ser Gly Asp Gln
3110	Cys Glu Leu Asp Phe Asp	3115	Glu Cys His Ser Asn	3120	Pro Cys Arg Asn
3125	Gly Ala Thr Cys Val Asp	3130	Gly Phe Asn Thr Phe	3135	Arg Cys Leu Cys
3140	Leu Pro Ser Tyr Val Gly	3145	Ala Leu Cys Glu Gln	3150	Asp Thr Glu Thr
3155	Cys Asp Tyr Gly Trp His	3160	Lys Phe Gln Gly Gln	3165	Cys Tyr Lys Tyr
3170	Phe Ala His Arg Arg Thr	3175	Trp Asp Ala Ala Glu	3180	Arg Glu Cys Arg
3185	Leu Gln Gly Ala His Leu	3190	Thr Ser Ile Leu Ser	3195	His Glu Glu Gln
3200	Met Phe Val Asn Arg Val	3205	Gly His Asp Tyr Gln	3210	Trp Ile Gly Leu
3215	Asn Asp Lys Met Phe Glu	3220	His Asp Phe Arg Trp	3225	Thr Asp Gly Ser
3230	Thr Leu Gln Tyr Glu Asn	3235	Trp Arg Pro Asn Gln	3240	Pro Asp Ser Phe
3245	Phe Ser Ala Gly Glu Asp	3250	Cys Val Val Ile Ile	3255	Trp His Glu Asn
3260	Gly Gln Trp Asn Asp Val	3265	Pro Cys Asn Tyr His	3270	Leu Thr Tyr Thr
3275	Cys Lys Lys Gly Thr Val	3280	Ala Cys Gly Gln Pro	3285	Pro Val Val Glu
3290	Asn Ala Lys Thr Phe Gly	3295	Lys Met Lys Pro Arg	3300	Tyr Glu Ile Asn
3305	Ser Leu Ile Arg Tyr His	3310	Cys Lys Asp Gly Phe	3315	Ile Gln Arg His
3320	Leu Pro Thr Ile Arg Cys	3325	Leu Gly Asn Gly Arg	3330	Trp Ala Ile Pro
3335	Lys Ile Thr Cys Met Asn	3340	Pro Ser Ala Tyr Gln	3345	Arg Thr Tyr Ser
3350	Met Lys Tyr Phe Lys Asn	3355	Ser Ser Ser Ala Lys	3360	Asp Asn Ser Ile
3365	Asn Thr Ser Lys His Asp	3370	His Arg Trp Ser Arg	3375	Arg Trp Gln Glu
3380	Ser Arg Arg Met Phe Ile	3385	Asn Ile Lys Ser Ile	3390	Leu Trp Met Cys
3395		3400		3405	

Ser	Thr	Leu	Ile	Val	Thr	His	Ala	Leu	His	Lys	Val	Lys	Val	Gly
3410						3415					3420			
Lys	Ser	Pro	Pro	Val	Arg	Gly	Ser	Leu	Ser	Gly	Lys	Val	Ser	Leu
3425						3430					3435			
Pro	Cys	His	Phe	Ser	Thr	Met	Pro	Thr	Leu	Pro	Pro	Ser	Tyr	Asn
3440						3445					3450			
Thr	Ser	Glu	Phe	Leu	Arg	Ile	Lys	Trp	Ser	Lys	Ile	Glu	Val	Asp
3455						3460					3465			
Lys	Asn	Gly	Lys	Asp	Leu	Lys	Glu	Thr	Thr	Val	Leu	Val	Ala	Gln
3470						3475					3480			
Asn	Gly	Asn	Ile	Lys	Ile	Gly	Gln	Asp	Tyr	Lys	Gly	Arg	Val	Ser
3485						3490					3495			
Val	Pro	Thr	His	Pro	Glu	Ala	Val	Gly	Asp	Ala	Ser	Leu	Thr	Val
3500						3505					3510			
Val	Lys	Leu	Leu	Ala	Ser	Asp	Ala	Gly	Leu	Tyr	Arg	Cys	Asp	Val
3515						3520					3525			
Met	Tyr	Gly	Ile	Glu	Asp	Thr	Gln	Asp	Thr	Val	Ser	Leu	Thr	Val
3530						3535					3540			
Asp	Gly	Val	Val	Phe	His	Tyr	Arg	Ala	Ala	Thr	Ser	Arg	Tyr	Thr
3545						3550					3555			
Leu	Asn	Phe	Glu	Ala	Ala	Gln	Lys	Ala	Cys	Leu	Asp	Val	Gly	Ala
3560						3565					3570			
Val	Ile	Ala	Thr	Pro	Glu	Gln	Leu	Phe	Ala	Ala	Tyr	Glu	Asp	Gly
3575						3580					3585			
Phe	Glu	Gln	Cys	Asp	Ala	Gly	Trp	Leu	Ala	Asp	Gln	Thr	Val	Arg
3590						3595					3600			
Tyr	Pro	Ile	Arg	Ala	Pro	Arg	Val	Gly	Cys	Tyr	Gly	Asp	Lys	Met
3605						3610					3615			
Gly	Lys	Ala	Gly	Val	Arg	Thr	Tyr	Gly	Phe	Arg	Ser	Pro	Gln	Glu
3620						3625					3630			
Thr	Tyr	Asp	Val	Tyr	Cys	Tyr	Val	Asp	His	Leu	Asp	Gly	Asp	Val
3635						3640					3645			
Phe	His	Leu	Thr	Val	Pro	Ser	Lys	Phe	Thr	Phe	Glu	Glu	Ala	Ala
3650						3655					3660			
Lys	Glu	Cys	Glu	Asn	Gln	Asp	Ala	Arg	Leu	Ala	Thr	Val	Gly	Glu
3665						3670					3675			
Leu	Gln	Ala	Ala	Trp	Arg	Asn	Gly	Phe	Asp	Gln	Cys	Asp	Tyr	Gly
3680						3685					3690			
Trp	Leu	Ser	Asp	Ala	Ser	Val	Arg	His	Pro	Val	Thr	Val	Ala	Arg
3695						3700					3705			
Ala	Gln	Cys	Gly	Gly	Gly	Leu	Leu	Gly	Val	Arg	Thr	Leu	Tyr	Arg
3710						3715					3720			
Phe	Glu	Asn	Gln	Thr	Gly	Phe	Pro	Pro	Pro	Asp	Ser	Arg	Phe	Asp
3725						3730					3735			
Ala	Tyr	Cys	Phe	Lys	Pro	Lys	Glu	Ala	Thr	Thr	Ile	Asp	Leu	Ser
3740						3745					3750			
Ile	Leu	Ala	Glu	Thr	Ala	Ser	Pro	Ser	Leu	Ser	Lys	Glu	Pro	Gln
3755						3760					3765			
Met	Val	Ser	Asp	Arg	Thr	Thr	Pro	Ile	Ile	Pro	Leu	Val	Asp	Glu
3770						3775					3780			
Leu	Pro	Val	Ile	Pro	Thr	Glu	Phe	Pro	Pro	Val	Gly	Asn	Ile	Val
3785						3790					3795			
Ser	Phe	Glu	Gln	Lys	Ala	Thr	Val	Gln	Pro	Gln	Ala	Ile	Thr	Asp
3800						3805					3810			
Ser	Leu	Ala	Thr	Lys	Leu	Pro	Thr	Pro	Thr	Gly	Ser	Thr	Lys	Lys
3815						3820					3825			
Pro	Trp	Asp	Met	Asp	Asp	Tyr	Ser	Pro	Ser	Ala	Ser	Gly	Pro	Leu
3830						3835					3840			
Gly	Lys	Leu	Asp	Ile	Ser	Glu	Ile	Lys	Glu	Glu	Val	Leu	Gln	Ser
3845						3850					3855			
Thr	Thr	Gly	Val	Ser	His	Tyr	Ala	Thr	Asp	Ser	Trp	Asp	Gly	Val
3860						3865					3870			
Val	Glu	Asp	Lys	Gln	Thr	Gln	Glu	Ser	Val	Thr	Gln	Ile	Glu	Gln
3875						3880					3885			
Ile	Glu	Val	Gly	Pro	Leu	Val	Thr	Ser	Met	Glu	Ile	Leu	Lys	His
3890						3895					3900			
Ile	Pro	Ser	Lys	Glu	Phe	Pro	Val	Thr	Glu	Thr	Pro	Leu	Val	Thr
3905						3910					3915			
Ala	Arg	Met	Ile	Leu	Glu	Ser	Lys	Thr	Glu	Lys	Lys	Met	Val	Ser

3920	Thr Val Ser Glu Leu Val	3925	Thr Thr Gly His Tyr	3930	Gly Phe Thr Leu
3935	Gly Glu Glu Asp Asp Glu	3940	Asp Arg Thr Leu Thr	3945	Val Gly Ser Asp
3950	Glu Ser Thr Leu Ile Phe	3955	Asp Gln Ile Pro Glu	3960	Val Ile Thr Val
3965	Ser Lys Thr Ser Glu Asp	3970	Thr Ile His Thr His	3975	Leu Glu Asp Leu
3980	Glu Ser Val Ser Ala Ser	3985	Thr Thr Val Ser Pro	3990	Leu Ile Met Pro
3995	Asp Asn Asn Gly Ser Ser	4000	Met Asp Asp Trp Glu	4005	Glu Arg Gln Thr
4010	Ser Gly Arg Ile Thr Glu	4015	Glu Phe Leu Gly Lys	4020	Tyr Leu Ser Thr
4025	Thr Pro Phe Pro Ser Gln	4030	His Arg Thr Glu Ile	4035	Glu Leu Phe Pro
4040	Tyr Ser Gly Asp Lys Ile	4045	Leu Val Glu Gly Ile	4050	Ser Thr Val Ile
4055	Tyr Pro Ser Leu Gln Thr	4060	Glu Met Thr His Arg	4065	Arg Glu Arg Thr
4070	Glu Thr Leu Ile Pro Glu	4075	Met Arg Thr Asp Thr	4080	Tyr Thr Asp Glu
4085	Ile Gln Glu Glu Ile Thr	4090	Lys Ser Pro Phe Met	4095	Gly Lys Thr Glu
4100	Glu Glu Val Phe Ser Gly	4105	Met Lys Leu Ser Thr	4110	Ser Leu Ser Glu
4115	Pro Ile His Val Thr Glu	4120	Ser Ser Val Glu Met	4125	Thr Lys Ser Phe
4130	Asp Phe Pro Thr Leu Ile	4135	Thr Lys Leu Ser Ala	4140	Glu Pro Thr Glu
4145	Val Arg Asp Met Glu Glu	4150	Asp Phe Thr Ala Thr	4155	Pro Gly Thr Thr
4160	Lys Tyr Asp Glu Asn Ile	4165	Thr Thr Val Leu Leu	4170	Ala His Gly Thr
4175	Leu Ser Val Glu Ala Ala	4180	Val Ser Lys Trp Ser	4185	Trp Asp Glu
4190	Asp Asn Thr Thr Ser Lys	4195	Pro Leu Glu Ser Thr	4200	Glu Pro Ser Ala
4205	Ser Ser Lys Leu Pro Pro	4210	Ala Leu Leu Thr Thr	4215	Val Gly Met Asn
4220	Gly Lys Asp Lys Asp Ile	4225	Pro Ser Phe Thr Glu	4230	Asp Gly Ala Asp
4235	Glu Phe Thr Leu Ile Pro	4240	Asp Ser Thr Gln Lys	4245	Gln Leu Glu Glu
4250	Val Thr Asp Glu Asp Ile	4255	Ala Ala His Gly Lys	4260	Phe Thr Ile Arg
4265	Phe Gln Pro Thr Thr Ser	4270	Thr Gly Ile Ala Glu	4275	Lys Ser Thr Leu
4280	Arg Asp Ser Thr Thr Glu	4285	Glu Lys Val Pro Pro	4290	Ile Thr Ser Thr
4295	Glu Gly Gln Val Tyr Ala	4300	Thr Met Glu Gly Ser	4305	Ala Leu Gly Glu
4310	Val Glu Asp Val Asp Leu	4315	Ser Lys Pro Val Ser	4320	Thr Val Pro Gln
4325	Phe Ala His Thr Ser Glu	4330	Val Glu Gly Leu Ala	4335	Phe Val Ser Tyr
4340	Ser Ser Thr Gln Glu Pro	4345	Thr Thr Tyr Val Asp	4350	Ser Ser His Thr
4355	Ile Pro Leu Ser Val Ile	4360	Pro Lys Thr Asp Trp	4365	Gly Val Leu Val
4370	Pro Ser Val Pro Ser Glu	4375	Asp Glu Val Leu Gly	4380	Glu Pro Ser Gln
4385	Asp Ile Leu Val Ile Asp	4390	Gln Thr Arg Leu Glu	4395	Ala Thr Ile Ser
4400	Pro Glu Thr Met Arg Thr	4405	Lys Lys Ile Thr Glu	4410	Gly Thr Thr Gln
4415	Glu Glu Phe Pro Trp Lys	4420	Glu Gln Thr Ala Glu	4425	Lys Pro Val Pro
4430		4435		4440	

Ala Leu	Ser Ser Thr	Ala Trp	Thr Pro Lys	Glu Ala	Val Thr Pro
4445		4450		4455	
Leu Asp	Glu Gln Glu Gly	Asp Gly Ser	Ala Tyr Thr	Val Ser Glu	
4460		4465		4470	
Asp Glu	Leu Leu Thr Gly	Ser Glu Arg	Val Pro Val	Leu Glu Thr	
4475		4480		4485	
Thr Pro	Val Gly Lys Ile	Asp His Ser	Val Ser Tyr	Pro Pro Gly	
4490		4495		4500	
Ala Val	Thr Glu His Lys	Val Lys Thr	Asp Glu Val	Val Thr Leu	
4505		4510		4515	
Thr Pro	Arg Ile Gly Pro	Lys Val Ser	Leu Ser Pro	Gly Pro Glu	
4520		4525		4530	
Gln Lys	Tyr Glu Thr Glu	Gly Ser Ser	Thr Thr Gly	Phe Thr Ser	
4535		4540		4545	
Ser Leu	Ser Pro Phe Ser	Thr His Ile	Thr Gln Leu	Met Glu Glu	
4550		4555		4560	
Thr Thr	Thr Glu Lys Thr	Ser Leu Glu	Asp Ile Asp	Leu Gly Ser	
4565		4570		4575	
Gly Leu	Phe Glu Lys Pro	Lys Ala Thr	Glu Leu Ile	Glu Phe Ser	
4580		4585		4590	
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<211> 1712

<212> DNA

<213> Homo sapiens

<400> 479

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<210> 480

<211> 2175

<212> DNA

<213> Homo sapiens

<400> 480

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<210> 481

<211> 1805

<212> DNA

<213> Homo sapiens

<400> 481

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<210> 482

<211> 895

<212> DNA

<213> Homo sapiens

<400> 482

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<210> 483

<211> 9432

<212> DNA

<213> Homo sapiens

<400> 483

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 491

<211> 1646

<212> DNA

<213> Homo sapiens

<400> 491

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ctcctggcaa ttattacata tgttagaaca tggattttgc actgtagaca acatttaaca      1560
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<210> 492

<211> 158

<212> PRT

<213> Homo sapiens

<400> 492

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Leu Ile Leu Val Leu Glu Ser Ser Val Gln Gly Tyr Pro Thr Arg Arg
20     25     30
Ala Arg Tyr Gln Trp Val Arg Cys Asn Pro Asp Ser Asn Ser Ala Asn
35     40     45
Cys Leu Glu Glu Lys Gly Pro Met Phe Glu Leu Leu Pro Gly Glu Ser
50     55     60
Asn Lys Ile Pro Arg Leu Arg Thr Asp Leu Phe Pro Lys Thr Arg Ile
65     70     75     80
Gln Asp Leu Asn Arg Ile Phe Pro Leu Ser Glu Asp Tyr Ser Gly Ser
85     90     95
Gly Phe Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Phe
100    105    110
Leu Thr Glu Met Glu Gln Asp Tyr Gln Leu Val Asp Glu Ser Asp Ala
115    120    125
Phe His Asp Asn Leu Arg Ser Leu Asp Arg Asn Leu Pro Ser Asp Ser
130    135    140
Gln Asp Leu Gly Gln His Gly Leu Glu Glu Asp Phe Met Leu
145    150    155

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<210> 493

<211> 592

<212> PRT

<213> Homo sapiens

<400> 493

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Met Ala Ser Glu Ile His Met Thr Gly Pro Met Cys Leu Ile Glu Asn
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Thr Asn Gly Arg Leu Met Ala Asn Pro Glu Ala Leu Lys Ile Leu Ser
20     25     30
Ala Ile Thr Gln Pro Met Val Val Val Ala Ile Val Gly Leu Tyr Arg

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- 440 -


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<210> 494
<211> 632
<212> PRT
<213> Homo sapiens
<400> 494
Met Ser Arg Val Arg Asp Ala Gly Cys Val Ala Ala Gly Ile Val Ile
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Gly Ala Gly Ala Trp Tyr Cys Val Tyr Lys Tyr Thr Arg Gly Arg Asp
20      25      30
Gln Thr Lys Lys Arg Met Ala Lys Pro Lys Asn Arg Ala Val Ala Gly
35      40      45
Thr Gly Ala Arg Ala Arg Ala Gly Leu Arg Ala Gly Phe Thr Ile Asp
50      55      60
Leu Gly Ser Gly Phe Ser Pro Pro Thr Pro Val Arg Ala Glu Ala Glu
65      70      75      80
Asp Arg Ala Gln Asp Glu Ala Ser Ala Leu Asp Thr Val Gly Ala Glu
85      90      95
Ala Val Ala Pro Ala Ala Ser Ser Ala Glu Ala Gln Ser Gly Ala Gly
100     105     110
Ser Gln Ala Gln Glu Ala Asp Gly Ala Gly Val Gly Pro Lys Ala Glu
115     120     125
Ser Val Val Gly Ala Ala Met Ala Ser Ala Ile Ala Pro Pro Pro Gly
130     135     140
Val Thr Glu Ala Leu Gly Ala Ala Glu Ala Pro Ala Met Ala Gly Ala
145     150     155     160
Pro Lys Val Ala Glu Ala Pro Arg Glu Ala Glu Thr Ser Arg Ala Ala
165     170     175
Val Pro Pro Gly Thr Val Val Pro Thr Glu Ala Ala Ala Pro Thr Glu
180     185     190
Val Thr Glu Gly Pro Gly Val Ala Ala Pro Thr Lys Val Ala Glu Ala
195     200     205
Pro Gly Val Ala Ser Pro Thr Glu Ala Ala Glu Ala Pro Val Pro Ala
210     215     220
Thr Pro Thr Gly Ala Ala Pro Thr Gly Ala Ala Glu Ser Pro Gly
225     230     235     240
Thr Ser Gly Ser Pro Arg Thr Ala Val Val Pro Gly Thr Ser Ala Ala
245     250     255
Lys Lys Ala Thr Pro Gly Ala His Thr Gly Ala Ile Pro Lys Ala Thr
260     265     270
Ser Ala Thr Gly Ala Val Pro Lys Gly Gly Gly Lys Gly Val Thr Arg
275     280     285
Ser Arg Asn Gly Gly Lys Gly Lys Gly Lys Lys Ser Lys Val Glu Val
290     295     300
Asp Glu Leu Gly Met Gly Phe Arg Pro Gly Asp Gly Ala Ala Ala Ala
305     310     315     320
Ala Ala Ala Ser Ala Asn Gly Gly Gln Ala Phe Leu Ala Glu Val Pro
325     330     335
Asp Ser Glu Glu Gly Glu Ser Gly Trp Thr Asp Thr Glu Ser Asp Ser
340     345     350
Asp Ser Glu Pro Glu Thr Gln Arg Arg Gly Arg Gly Arg Arg Pro Val
355     360     365
Ala Met Gln Lys Arg Pro Phe Pro Tyr Glu Ile Asp Glu Ile Leu Gly
370     375     380
Val Arg Asp Leu Arg Lys Val Leu Ala Leu Leu Gln Lys Ser Asp Asp
385     390     395     400
Pro Phe Ile Gln Gln Val Ala Leu Leu Thr Leu Ser Asn Asn Ala Asn
405     410     415
Tyr Ser Cys Asn Gln Glu Thr Ile Arg Lys Leu Gly Gly Leu Pro Ile
420     425     430
Ile Ala Asn Met Ile Asn Lys Thr Asp Pro His Ile Lys Glu Lys Ala
435     440     445
Leu Met Ala Met Asn Asn Leu Ser Glu Asn Tyr Glu Asn Gln Gly Arg
450     455     460
Leu Gln Val Tyr Met Asn Lys Val Met Asp Asp Ile Met Ala Ser Asn
465     470     475     480
Leu Asn Ser Ala Val Gln Val Val Gly Leu Lys Phe Leu Thr Asn Met
485     490     495
Thr Ile Thr Asn Asp Tyr Gln His Leu Leu Val Asn Ser Ile Ala Asn

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500 505 510
 Phe Phe Arg Leu Leu Ser Gln Gly Gly Gly Lys Ile Lys Val Glu Ile
 515 520 525
 Leu Lys Ile Leu Ser Asn Phe Ala Glu Asn Pro Asp Met Leu Lys Lys
 530 535 540
 Leu Leu Ser Thr Gln Val Pro Ala Ser Phe Ser Ser Leu Tyr Asn Ser
 545 550 555 560
 Tyr Val Glu Ser Glu Ile Leu Ile Asn Ala Leu Thr Leu Phe Glu Ile
 565 570 575
 Ile Tyr Asp Asn Leu Arg Ala Glu Val Phe Asn Tyr Arg Glu Phe Asn
 580 585 590
 Lys Gly Ser Leu Phe Tyr Leu Cys Thr Thr Ser Gly Val Cys Val Lys
 595 600 605
 Lys Ile Arg Ala Leu Ala Asn His His Asp Leu Leu Val Lys Val Lys
 610 615 620
 Val Ile Lys Leu Val Asn Lys Phe
 625 630

<210> 495
 <211> 219
 <212> PRT
 <213> Homo sapiens
 <400> 495

Met Gly Met Ser Ser Leu Lys Leu Leu Lys Tyr Val Leu Phe Phe Phe
 1 5 10 15
 Asn Leu Leu Phe Trp Ile Cys Gly Cys Cys Ile Leu Gly Phe Gly Ile
 20 25 30
 Tyr Leu Leu Ile His Asn Asn Phe Gly Val Leu Phe His Asn Leu Pro
 35 40 45
 Ser Leu Thr Leu Gly Asn Val Phe Val Ile Val Gly Ser Ile Ile Met
 50 55 60
 Val Val Ala Phe Leu Gly Cys Met Gly Ser Ile Lys Glu Asn Lys Cys
 65 70 75 80
 Leu Leu Met Ser Phe Phe Ile Leu Leu Leu Ile Ile Leu Leu Ala Glu
 85 90 95
 Val Thr Leu Ala Ile Leu Leu Phe Val Tyr Glu Gln Lys Leu Asn Glu
 100 105 110
 Tyr Val Ala Lys Gly Leu Thr Asp Ser Ile His Arg Tyr His Ser Asp
 115 120 125
 Asn Ser Thr Lys Ala Ala Trp Asp Ser Ile Gln Ser Phe Leu Gln Cys
 130 135 140
 Cys Gly Ile Asn Gly Thr Ser Asp Trp Thr Ser Gly Pro Pro Ala Ser
 145 150 155 160
 Cys Pro Ser Asp Arg Lys Val Glu Gly Cys Tyr Ala Lys Ala Arg Leu
 165 170 175
 Trp Phe His Ser Asn Phe Leu Tyr Ile Gly Ile Ile Thr Ile Cys Val
 180 185 190
 Cys Val Ile Glu Val Leu Gly Met Ser Phe Ala Leu Thr Leu Asn Cys
 195 200 205
 Gln Ile Asp Lys Thr Ser Gln Thr Ile Gly Leu
 210 215

<210> 496
 <211> 739
 <212> PRT
 <213> Homo sapiens
 <400> 496

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 Ile Met Phe Ala Ala Ser Gln Ala Phe Lys Ile Glu Thr Thr Pro Glu
 20 25 30
 Ser Arg Tyr Leu Ala Gln Ile Gly Asp Ser Val Ser Leu Thr Cys Ser
 35 40 45
 Thr Thr Gly Cys Glu Ser Pro Phe Phe Ser Trp Arg Thr Gln Ile Asp
 50 55 60
 Ser Pro Leu Asn Gly Lys Val Thr Asn Glu Gly Thr Thr Ser Thr Leu
 65 70 75 80
 Thr Met Asn Pro Val Ser Phe Gly Asn Glu His Ser Tyr Leu Cys Thr
 85 90 95

Ala	Thr	Cys	Glu	Ser	Arg	Lys	Leu	Glu	Lys	Gly	Ile	Gln	Val	Glu	Ile
			100					105					110		
Tyr	Ser	Phe	Pro	Lys	Asp	Pro	Glu	Ile	His	Leu	Ser	Gly	Pro	Leu	Glu
		115					120					125			
Ala	Gly	Lys	Pro	Ile	Thr	Val	Lys	Cys	Ser	Val	Ala	Asp	Val	Tyr	Pro
		130					135				140				
Phe	Asp	Arg	Leu	Glu	Ile	Asp	Leu	Leu	Lys	Gly	Asp	His	Leu	Met	Lys
145					150					155				160	
Ser	Gln	Glu	Phe	Leu	Glu	Asp	Ala	Asp	Arg	Lys	Ser	Leu	Glu	Thr	Lys
				165				170						175	
Ser	Leu	Glu	Val	Thr	Phe	Thr	Pro	Val	Ile	Glu	Asp	Ile	Gly	Lys	Val
			180					185					190		
Leu	Val	Cys	Arg	Ala	Lys	Leu	His	Ile	Asp	Glu	Met	Asp	Ser	Val	Pro
		195					200					205			
Thr	Val	Arg	Gln	Ala	Val	Lys	Glu	Leu	Gln	Val	Tyr	Ile	Ser	Pro	Lys
		210				215					220				
Asn	Thr	Val	Ile	Ser	Val	Asn	Pro	Ser	Thr	Lys	Leu	Gln	Glu	Gly	Gly
225					230					235				240	
Ser	Val	Thr	Met	Thr	Cys	Ser	Ser	Glu	Gly	Leu	Pro	Ala	Pro	Glu	Ile
				245					250					255	
Phe	Trp	Ser	Lys	Lys	Leu	Asp	Asn	Gly	Asn	Leu	Gln	His	Leu	Ser	Gly
			260					265					270		
Asn	Ala	Thr	Leu	Thr	Leu	Ile	Ala	Met	Arg	Met	Glu	Asp	Ser	Gly	Ile
		275					280					285			
Tyr	Val	Cys	Glu	Gly	Val	Asn	Leu	Ile	Gly	Lys	Asn	Arg	Lys	Glu	Val
		290				295					300				
Glu	Leu	Ile	Val	Gln	Glu	Lys	Pro	Phe	Thr	Val	Glu	Ile	Ser	Pro	Gly
305					310					315				320	
Pro	Arg	Ile	Ala	Ala	Gln	Ile	Gly	Asp	Ser	Val	Met	Leu	Thr	Cys	Ser
				325				330						335	
Val	Met	Gly	Cys	Glu	Ser	Pro	Ser	Phe	Ser	Trp	Arg	Thr	Gln	Ile	Asp
			340					345					350		
Ser	Pro	Leu	Ser	Gly	Lys	Val	Arg	Ser	Glu	Gly	Thr	Asn	Ser	Thr	Leu
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		370				375						380			
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385					390					395				400	
Tyr	Ser	Phe	Pro	Arg	Asp	Pro	Glu	Ile	Glu	Met	Ser	Gly	Gly	Leu	Val
				405					410					415	
Asn	Gly	Ser	Ser	Val	Thr	Val	Ser	Cys	Lys	Val	Pro	Ser	Val	Tyr	Pro
			420					425					430		
Leu	Asp	Arg	Leu	Glu	Ile	Glu	Leu	Leu	Lys	Gly	Glu	Thr	Ile	Leu	Glu
		435					440					445			
Asn	Ile	Glu	Phe	Leu	Glu	Asp	Thr	Asp	Met	Lys	Ser	Leu	Glu	Asn	Lys
		450				455					460				
Ser	Leu	Glu	Met	Thr	Phe	Ile	Pro	Thr	Ile	Glu	Asp	Thr	Gly	Lys	Ala
465					470					475				480	
Leu	Val	Cys	Gln	Ala	Lys	Leu	His	Ile	Asp	Asp	Met	Glu	Phe	Glu	Pro
				485				490						495	
Lys	Gln	Arg	Gln	Ser	Thr	Gln	Thr	Leu	Tyr	Val	Asn	Val	Ala	Pro	Arg
			500					505					510		
Asp	Thr	Thr	Val	Leu	Val	Ser	Pro	Ser	Ser	Ile	Leu	Glu	Gly	Ser	
		515					520					525			
Ser	Val	Asn	Met	Thr	Cys	Leu	Ser	Gln	Gly	Phe	Pro	Ala	Pro	Lys	Ile
		530				535					540				
Leu	Trp	Ser	Arg	Gln	Leu	Pro	Asn	Gly	Glu	Leu	Gln	Pro	Leu	Ser	Glu
545					550					555				560	
Asn	Ala	Thr	Leu	Thr	Leu	Ile	Ser	Thr	Lys	Met	Glu	Asp	Ser	Gly	Val
				565					570					575	
Tyr	Leu	Cys	Glu	Gly	Ile	Asn	Gln	Ala	Gly	Arg	Ser	Arg	Lys	Glu	Val
			580					585					590		
Glu	Leu	Ile	Gln	Val	Thr	Pro	Lys	Asp	Ile	Lys	Leu	Thr	Ala	Phe	
		595				600					605				
Pro	Ser	Glu	Ser	Val	Lys	Glu	Gly	Asp	Thr	Val	Ile	Ile	Ser	Cys	Thr
		610				615					620				
Cys	Gly	Asn	Val	Pro	Glu	Thr	Trp	Ile	Ile	Leu	Lys	Lys	Lys	Ala	Glu
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Thr	Gly	Asp	Thr	Val	Leu	Lys	Ser	Ile	Asp	Gly	Ala	Tyr	Thr	Ile	Arg

645										650				655			
Lys	Ala	Gln	Leu	Lys	Asp	Ala	Gly	Val	Tyr	Glu	Cys	Glu	Ser	Lys	Asn		
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Lys	Val	Gly	Ser	Gln	Leu	Arg	Ser	Leu	Thr	Leu	Asp	Val	Gln	Gly	Arg		
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Glu	Asn	Asn	Lys	Asp	Tyr	Phe	Ser	Pro	Glu	Leu	Leu	Val	Leu	Tyr	Phe		
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Ala	Ser	Ser	Leu	Ile	Ile	Pro	Ala	Ile	Gly	Met	Ile	Ile	Tyr	Phe	Ala		
705										710				715			
Arg	Lys	Ala	Asn	Met	Lys	Gly	Ser	Tyr	Ser	Leu	Val	Glu	Ala	Gln	Lys		
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Ser	Lys	Val															

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<210> 497
<211> 441
<212> PRT
<213> Homo sapiens
<400> 497
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			20					25					30		
Gln	Asp	Gln	Glu	Gly	Asp	Thr	Asp	Ala	Gly	Leu	Lys	Glu	Ser	Pro	Leu
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Gln	Thr	Pro	Thr	Glu	Asp	Gly	Ser	Glu	Glu	Pro	Gly	Ser	Glu	Thr	Ser
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Asp	Ala	Lys	Ser	Thr	Pro	Thr	Ala	Glu	Asp	Val	Thr	Ala	Pro	Leu	Val
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Asp	Glu	Gly	Ala	Pro	Gly	Lys	Gln	Ala	Ala	Ala	Gln	Pro	His	Thr	Glu
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Ile	Pro	Glu	Gly	Thr	Thr	Ala	Glu	Glu	Ala	Gly	Ile	Gly	Asp	Thr	Pro
			100					105					110		
Ser	Leu	Glu	Asp	Glu	Ala	Ala	Gly	His	Val	Thr	Gln	Ala	Arg	Met	Val
		115					120					125			
Ser	Lys	Ser	Lys	Asp	Gly	Thr	Gly	Ser	Asp	Asp	Lys	Lys	Ala	Lys	Gly
		130				135					140				
Ala	Asp	Gly	Lys	Thr	Lys	Ile	Ala	Thr	Pro	Arg	Gly	Ala	Ala	Pro	Pro
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Gly	Gln	Lys	Gly	Gln	Ala	Asn	Ala	Thr	Arg	Ile	Pro	Ala	Lys	Thr	Pro
			165						170					175	
Pro	Ala	Pro	Lys	Thr	Pro	Pro	Ser	Ser	Gly	Glu	Pro	Pro	Lys	Ser	Gly
			180					185					190		
Asp	Arg	Ser	Gly	Tyr	Ser	Ser	Pro	Gly	Ser	Pro	Gly	Thr	Pro	Gly	Ser
		195					200					205			
Arg	Ser	Arg	Thr	Pro	Ser	Leu	Pro	Thr	Pro	Pro	Thr	Arg	Glu	Pro	Lys
		210				215					220				
Lys	Val	Ala	Val	Val	Arg	Thr	Pro	Pro	Lys	Ser	Pro	Ser	Ser	Ala	Lys
225					230				235					240	
Ser	Arg	Leu	Gln	Thr	Ala	Pro	Val	Pro	Met	Pro	Asp	Leu	Lys	Asn	Val
			245						250					255	
Lys	Ser	Lys	Ile	Gly	Ser	Thr	Glu	Asn	Leu	Lys	His	Gln	Pro	Gly	Gly
			260					265				270			
Gly	Lys	Val	Gln	Ile	Ile	Asn	Lys	Lys	Leu	Asp	Leu	Ser	Asn	Val	Gln
			275				280					285			
Ser	Lys	Cys	Gly	Ser	Lys	Asp	Asn	Ile	Lys	His	Val	Pro	Gly	Gly	Gly
			290			295					300				
Ser	Val	Gln	Ile	Val	Tyr	Lys	Pro	Val	Asp	Leu	Ser	Lys	Val	Thr	Ser
305					310				315					320	
Lys	Cys	Gly	Ser	Leu	Gly	Asn	Ile	His	His	Lys	Pro	Gly	Gly	Gly	Gln
			325						330					335	
Val	Glu	Val	Lys	Ser	Glu	Lys	Leu	Asp	Phe	Lys	Asp</				

Gly Asp Thr Ser Pro Arg His Leu Ser Asn Val Ser Ser Thr Gly Ser
 405 410 415
 Ile Asp Met Val Asp Ser Pro Gln Leu Ala Thr Leu Ala Asp Glu Val
 420 425 430
 Ser Ala Ser Leu Ala Lys Gln Gly Leu
 435 440

<210> 498
 <211> 476
 <212> PRT
 <213> Homo sapiens
 <400> 498

Met Met Thr Ala Lys Ala Val Asp Lys Ile Pro Val Thr Leu Ser Gly
 1 5 10 15
 Phe Val His Gln Leu Ser Asp Asn Ile Tyr Pro Val Glu Asp Leu Ala
 20 25 30
 Ala Thr Ser Val Thr Ile Phe Pro Asn Ala Glu Leu Gly Gly Pro Phe
 35 40 45
 Asp Gln Met Asn Gly Val Ala Gly Asp Gly Met Ile Asn Ile Asp Met
 50 55 60
 Thr Gly Glu Lys Arg Ser Leu Asp Leu Pro Tyr Pro Ser Ser Phe Ala
 65 70 75 80
 Pro Val Ser Ala Pro Arg Asn Gln Thr Phe Thr Tyr Met Gly Lys Phe
 85 90 95
 Ser Ile Asp Pro Gln Tyr Pro Gly Ala Ser Cys Tyr Pro Glu Gly Ile
 100 105 110
 Ile Asn Ile Val Ser Ala Gly Ile Leu Gln Gly Val Thr Ser Pro Ala
 115 120 125
 Ser Thr Thr Ala Ser Ser Ser Val Thr Ser Ala Ser Pro Asn Pro Leu
 130 135 140
 Ala Thr Gly Pro Leu Gly Val Cys Thr Met Ser Gln Thr Gln Pro Asp
 145 150 155 160
 Leu Asp His Leu Tyr Ser Pro Pro Pro Pro Pro Pro Tyr Ser Gly
 165 170 175
 Cys Ala Gly Asp Leu Tyr Gln Asp Pro Ser Ala Phe Leu Ser Ala Ala
 180 185 190
 Thr Thr Ser Thr Ser Ser Ser Leu Ala Tyr Pro Pro Pro Pro Ser Tyr
 195 200 205
 Pro Ser Pro Lys Pro Ala Thr Asp Pro Gly Leu Phe Pro Met Ile Pro
 210 215 220
 Asp Tyr Pro Gly Phe Phe Pro Ser Gln Cys Gln Arg Asp Leu His Gly
 225 230 235 240
 Thr Ala Gly Pro Asp Arg Lys Pro Phe Pro Cys Pro Leu Asp Thr Leu
 245 250 255
 Arg Val Pro Pro Leu Thr Pro Leu Ser Thr Ile Arg Asn Phe Thr
 260 265 270
 Leu Gly Gly Pro Ser Ala Gly Val Thr Gly Pro Gly Ala Ser Gly Gly
 275 280 285
 Ser Glu Gly Pro Arg Leu Pro Gly Ser Ser Ser Ala Ala Ala Ala
 290 295 300
 Ala Ala Ala Ala Ala Tyr Asn Pro His His Leu Pro Leu Arg Pro Ile
 305 310 315 320
 Leu Arg Pro Arg Lys Tyr Pro Asn Arg Pro Ser Lys Thr Pro Val His
 325 330 335
 Glu Arg Pro Tyr Pro Cys Pro Ala Glu Gly Cys Asp Arg Arg Phe Ser
 340 345 350
 Arg Ser Asp Glu Leu Thr Arg His Ile Arg Ile His Thr Gly His Lys
 355 360 365
 Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser Asp His
 370 375 380
 Leu Thr Thr His Ile Arg Thr His Thr Gly Glu Lys Pro Phe Ala Cys
 385 390 395 400
 Asp Tyr Cys Gly Arg Lys Phe Ala Arg Ser Asp Glu Arg Lys Arg His
 405 410 415
 Thr Lys Ile His Leu Arg Gln Lys Glu Arg Lys Ser Ser Ala Pro Ser
 420 425 430
 Ala Ser Val Pro Ala Pro Ser Thr Ala Ser Cys Ser Gly Gly Val Gln
 435 440 445
 Pro Gly Gly Thr Leu Cys Ser Ser Asn Ser Ser Ser Leu Gly Gly Gly

450
 Pro Leu Ala Pro Cys Ser Ser Arg Thr Arg Thr Pro
 465 470 475

<210> 499
 <211> 406
 <212> PRT
 <213> Homo sapiens
 <400> 499

Met Ser Gly Cys Pro Phe Leu Gly Asn Asn Phe Gly Tyr Thr Phe Lys
 1 5 10 15
 Lys Leu Pro Val Glu Gly Ser Glu Glu Asp Lys Ser Gln Thr Gly Val
 20 25 30
 Asn Arg Ala Ser Lys Gly Gly Leu Ile Tyr Gly Asn Tyr Leu His Leu
 35 40 45
 Glu Lys Val Leu Asn Ala Gln Glu Leu Gln Ser Glu Thr Lys Gly Asn
 50 55 60
 Lys Ile His Asp Glu His Leu Phe Ile Ile Thr His Gln Ala Tyr Glu
 65 70 75 80
 Leu Trp Phe Lys Gln Ile Leu Trp Glu Leu Asp Ser Val Arg Glu Ile
 85 90 95
 Phe Gln Asn Gly His Val Arg Asp Glu Arg Asn Met Leu Lys Val Val
 100 105 110
 Ser Arg Met His Arg Val Ser Val Ile Leu Lys Leu Val Gln Gln
 115 120 125
 Phe Ser Ile Leu Glu Thr Met Thr Ala Leu Asp Phe Asn Asp Phe Arg
 130 135 140
 Glu Tyr Leu Ser Pro Ala Ser Gly Phe Gln Ser Leu Gln Phe Arg Leu
 145 150 155 160
 Leu Glu Asn Lys Ile Gly Val Leu Gln Asn Met Arg Val Pro Tyr Asn
 165 170 175
 Arg Arg His Tyr Arg Asp Asn Phe Lys Gly Glu Glu Asn Glu Leu Leu
 180 185 190
 Leu Lys Ser Glu Gln Glu Lys Thr Leu Leu Glu Leu Val Glu Ala Trp
 195 200 205
 Leu Glu Arg Thr Pro Gly Leu Glu Pro His Gly Phe Asn Phe Trp Gly
 210 215 220
 Lys Leu Glu Lys Asn Ile Thr Arg Gly Leu Glu Glu Glu Phe Ile Arg
 225 230 235 240
 Ile Gln Ala Lys Glu Glu Ser Glu Glu Lys Glu Glu Gln Val Ala Glu
 245 250 255
 Phe Gln Lys Gln Lys Glu Val Leu Leu Ser Leu Phe Asp Glu Lys Arg
 260 265 270
 His Glu His Leu Leu Ser Lys Gly Glu Arg Arg Leu Ser Tyr Arg Ala
 275 280 285
 Leu Gln Gly Ala Leu Met Ile Tyr Phe Tyr Arg Glu Glu Pro Arg Phe
 290 295 300
 Gln Val Pro Phe Gln Leu Thr Ser Leu Met Asp Ile Asp Ser Leu
 305 310 315 320
 Met Thr Lys Trp Arg Tyr Asn His Val Cys Met Val His Arg Met Leu
 325 330 335
 Gly Ser Lys Ala Gly Thr Gly Gly Ser Ser Gly Tyr His Tyr Leu Arg
 340 345 350
 Ser Thr Val Ser Asp Arg Tyr Lys Val Phe Val Asp Leu Phe Asn Leu
 355 360 365
 Ser Thr Tyr Leu Ile Pro Arg His Trp Ile Pro Lys Met Asn Pro Thr
 370 375 380
 Ile His Lys Phe Leu Tyr Thr Ala Glu Tyr Cys Asp Ser Ser Tyr Phe
 385 390 395 400
 Ser Ser Asp Glu Ser Asp
 405

<210> 500
 <211> 470
 <212> PRT
 <213> Homo sapiens
 <400> 500

Met Leu Arg Gly Ile Ser Gln Leu Pro Ala Val Ala Thr Met Ser Trp
 1 5 10 15

Val Leu Leu Pro Val Leu Trp Leu Ile Val Gln Thr Gln Ala Ile Ala
 20 25 30
 Ile Lys Gln Thr Pro Glu Leu Thr Leu His Glu Ile Val Cys Pro Lys
 35 40 45
 Lys Leu His Ile Leu His Lys Arg Glu Ile Lys Asn Asn Gln Thr Glu
 50 55 60
 Lys His Gly Lys Glu Glu Arg Tyr Glu Pro Glu Val Gln Tyr Gln Met
 65 70 75 80
 Ile Leu Asn Gly Glu Glu Ile Ile Leu Ser Leu Gln Lys Thr Lys His
 85 90 95
 Leu Leu Gly Pro Asp Tyr Thr Glu Thr Leu Tyr Ser Pro Arg Gly Glu
 100 105 110
 Glu Ile Thr Thr Lys Pro Glu Asn Met Glu His Cys Tyr Tyr Lys Gly
 115 120 125
 Asn Ile Leu Asn Glu Lys Asn Ser Val Ala Ser Ile Ser Thr Cys Asp
 130 135 140
 Gly Leu Arg Gly Tyr Phe Thr His His His Gln Arg Tyr Gln Ile Lys
 145 150 155 160
 Pro Leu Lys Ser Thr Asp Glu Lys Glu His Ala Val Phe Thr Ser Asn
 165 170 175
 Gln Glu Glu Gln Asp Pro Ala Asn His Thr Cys Gly Val Lys Ser Thr
 180 185 190
 Asp Gly Lys Gln Gly Pro Ile Arg Ile Ser Arg Ser Leu Lys Ser Pro
 195 200 205
 Glu Lys Glu Asp Phe Leu Arg Ala Gln Lys Tyr Ile Asp Leu Tyr Leu
 210 215 220
 Val Leu Asp Asn Ala Phe Tyr Lys Asn Tyr Asn Glu Asn Leu Thr Leu
 225 230 235 240
 Ile Arg Ser Phe Val Phe Asp Val Met Asn Leu Leu Asn Val Ile Tyr
 245 250 255
 Asn Thr Ile Asp Val Gln Val Ala Leu Val Gly Met Glu Ile Trp Ser
 260 265 270
 Asp Gly Asp Lys Ile Lys Val Val Pro Ser Ala Ser Thr Thr Phe Asp
 275 280 285
 Asn Phe Leu Arg Trp His Ser Ser Asn Leu Gly Lys Lys Ile His Asp
 290 295 300
 His Ala Gln Leu Leu Ser Gly Ile Ser Phe Asn Asn Arg Arg Val Gly
 305 310 315 320
 Leu Ala Ala Ser Asn Ser Leu Cys Ser Pro Ser Ser Val Ala Val Ile
 325 330 335
 Glu Ala Lys Lys Lys Asn Asn Val Ala Leu Val Gly Val Met Ser His
 340 345 350
 Glu Leu Gly His Val Leu Gly Met Pro Asp Val Pro Phe Asn Thr Lys
 355 360 365
 Cys Pro Ser Gly Ser Cys Val Met Asn Gln Tyr Leu Ser Ser Lys Phe
 370 375 380
 Pro Lys Asp Phe Ser Thr Ser Cys Arg Ala His Phe Glu Arg Tyr Leu
 385 390 395 400
 Leu Ser Gln Lys Pro Lys Cys Leu Leu Gln Ala Pro Ile Pro Thr Asn
 405 410 415
 Ile Met Thr Thr Pro Val Cys Gly Asn His Leu Leu Glu Val Gly Glu
 420 425 430
 Asp Cys Asp Cys Gly Ser Pro Lys Glu Cys Thr Asn Leu Cys Cys Glu
 435 440 445
 Ala Leu Thr Cys Lys Leu Lys Pro Gly Thr Asp Cys Gly Gly Asp Ala
 450 455 460
 Pro Asn His Thr Thr Glu
 465 470

<210> 501

<211> 347

<212> PRT

<213> Homo sapiens

<400> 501

Met Thr Leu Asp His Gln Ile Ile Asn Pro Thr Leu Lys Trp Ser Gln
 1 5 10 15
 Pro Ala Val Pro Ser Gly Gly Pro Leu Val Gln His Ala His Thr Thr
 20 25 30
 Leu Asp Ser Asp Ala Gly Leu Thr Glu Asn Pro Leu Thr Lys Leu Leu

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      35      40      45
Ala Ile Gly Lys Glu Asp Asp Asn Ala Gln Trp His Met Glu Asp Val
  50      55      60
Ile Glu Asp Ile Ile Gly Met Glu Ser Ser Phe Lys Glu Glu Gly Ala
  65      70      75      80
Asp Ser Pro Leu Leu Met Gln Arg Thr Leu Ser Gly Ser Ile Leu Asp
      85      90      95
Val Tyr Ser Gly Glu Gln Gly Ile Ser Pro Ile Asn Met Gly Leu Thr
      100      105      110
Ser Ala Ser Cys Pro Ser Ser Leu Pro Met Lys Arg Glu Ile Thr Glu
      115      120      125
Thr Asp Thr Arg Ala Leu Ala Lys Glu Arg Gln Lys Lys Asp Asn His
      130      135      140
Asn Leu Ile Glu Arg Arg Arg Tyr Asn Ile Asn Tyr Arg Ile Lys
      145      150      155      160
Glu Leu Gly Thr Leu Ile Pro Lys Ser Asn Asp Pro Asp Met Arg Trp
      165      170      175
Asn Lys Gly Thr Ile Leu Lys Ala Ser Val Glu Tyr Ile Lys Trp Leu
      180      185      190
Gln Lys Glu Gln Gln Arg Ala Arg Glu Leu Glu His Arg Gln Lys Lys
      195      200      205
Leu Glu Gln Ala Asn Arg Arg Leu Leu Leu Arg Ile Gln Glu Leu Glu
      210      215      220
Ile Gln Ala Arg Thr His Gly Leu Pro Thr Leu Ala Ser Leu Gly Thr
      225      230      235      240
Val Asp Leu Gly Ala His Val Thr Lys Gln Ser His Pro Glu Gln
      245      250      255
Asn Ser Val Asp Tyr Cys Gln Gln Leu Thr Val Ser Gln Gly Pro Ser
      260      265      270
Pro Glu Leu Cys Asp Gln Ala Ile Ala Phe Ser Asp Pro Leu Ser Tyr
      275      280      285
Phe Thr Asp Leu Ser Phe Ser Ala Ala Leu Lys Glu Glu Gln Arg Leu
      290      295      300
Asp Gly Met Leu Leu Asp Asp Thr Ile Ser Pro Phe Gly Thr Asp Pro
      305      310      315      320
Leu Leu Ser Ala Thr Ser Pro Ala Val Ser Lys Glu Ser Ser Arg Arg
      325      330      335
Ser Ser Phe Ser Ser Asp Asp Gly Asp Glu Leu
      340      345

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<210> 502

<211> 162

<212> PRT

<213> Homo sapiens

<400> 502

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Met Lys Glu Thr Ile Met Asn Gln Glu Lys Leu Ala Lys Leu Gln Ala
  1      5      10      15
Gln Val Arg Ile Gly Gly Lys Gly Thr Ala Arg Arg Lys Lys Val
      20      25      30
Val His Arg Thr Ala Thr Ala Asp Asp Lys Lys Leu Gln Phe Ser Leu
      35      40      45
Lys Lys Leu Gly Val Asn Asn Ile Ser Gly Ile Glu Glu Val Asn Met
      50      55      60
Phe Thr Asn Gln Gly Thr Val Ile His Phe Asn Asn Pro Lys Val Gln
      65      70      75      80
Ala Ser Leu Ala Ala Asn Thr Phe Thr Ile Thr Gly His Ala Glu Thr
      85      90      95
Lys Gln Leu Thr Glu Met Leu Pro Ser Ile Leu Asn Gln Leu Gly Ala
      100      105      110
Asp Ser Leu Thr Ser Leu Arg Arg Leu Ala Glu Ala Leu Pro Lys Gln
      115      120      125
Ser Val Asp Gly Lys Ala Pro Leu Ala Thr Gly Glu Asp Asp Asp
      130      135      140
Glu Val Pro Asp Leu Val Glu Asn Phe Asp Glu Ala Ser Lys Asn Glu
      145      150      155      160
Ala Asn

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<210> 503


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<211> 2602
<212> PRT
<213> Homo sapiens
<400> 503
Met Pro Val Thr Glu Lys Asp Leu Ala Glu Asp Ala Pro Trp Lys Lys
1      5      10
Ile Gln Gln Asn Thr Phe Thr Arg Trp Cys Asn Glu His Leu Lys Cys
20     25     30
Val Asn Lys Arg Ile Gly Asn Leu Gln Thr Asp Leu Ser Asp Gly Leu
35     40     45
Arg Leu Ile Ala Leu Leu Glu Val Leu Ser Gln Lys Arg Met Tyr Arg
50     55     60
Lys Tyr His Gln Arg Pro Thr Phe Arg Gln Met Gln Leu Glu Asn Val
65     70     75     80
Ser Val Ala Leu Glu Phe Leu Asp Arg Glu Ser Ile Lys Leu Val Ser
85     90     95
Ile Asp Ser Lys Ala Ile Val Asp Gly Asn Leu Lys Leu Ile Leu Gly
100    105    110
Leu Val Trp Thr Leu Ile Leu His Tyr Ser Ile Ser Met Pro Val Trp
115    120    125
Glu Asp Glu Gly Asp Asp Asp Ala Lys Lys Gln Thr Pro Lys Gln Arg
130    135    140
Leu Leu Gly Trp Ile Gln Asn Lys Ile Pro Tyr Leu Pro Ile Thr Asn
145    150    155    160
Phe Asn Gln Asn Trp Gln Asp Gly Lys Ala Leu Gly Ala Leu Val Asp
165    170    175
Ser Cys Ala Pro Gly Leu Cys Pro Asp Trp Glu Ser Trp Asp Pro Gln
180    185    190
Lys Pro Val Asp Asn Ala Arg Glu Ala Met Gln Gln Ala Asp Asp Trp
195    200    205
Leu Gly Val Pro Gln Val Ile Thr Pro Glu Glu Ile Ile His Pro Asp
210    215    220
Val Asp Glu His Ser Val Met Thr Tyr Leu Ser Gln Phe Pro Lys Ala
225    230    235    240
Lys Leu Lys Pro Gly Ala Pro Leu Lys Pro Lys Leu Asn Pro Lys Lys
245    250    255
Ala Arg Ala Tyr Gly Arg Gly Ile Glu Pro Thr Gly Asn Met Val Lys
260    265    270
Gln Pro Ala Lys Phe Thr Val Asp Thr Ile Ser Ala Gly Gln Gly Asp
275    280    285
Val Met Val Phe Val Glu Asp Pro Glu Gly Asn Lys Glu Glu Ala Gln
290    295    300
Val Thr Pro Asp Ser Asp Lys Asn Lys Thr Tyr Ser Val Glu Tyr Leu
305    310    315    320
Pro Lys Val Thr Gly Leu His Lys Val Thr Val Leu Phe Ala Gly Gln
325    330    335
His Ile Ser Lys Ser Pro Phe Glu Val Ser Val Asp Lys Ala Gln Gly
340    345    350
Asp Ala Ser Lys Val Thr Ala Lys Gly Pro Gly Leu Glu Ala Val Gly
355    360    365
Asn Ile Ala Asn Lys Pro Thr Tyr Phe Asp Ile Tyr Thr Ala Gly Ala
370    375    380
Gly Val Gly Asp Ile Gly Val Glu Val Glu Asp Pro Gln Gly Lys Asn
385    390    395    400
Thr Val Glu Leu Leu Val Glu Asp Lys Gly Asn Gln Val Tyr Arg Cys
405    410    415
Val Tyr Lys Pro Met Gln Pro Gly Pro His Val Val Lys Ile Phe Phe
420    425    430
Ala Gly Asp Thr Ile Pro Lys Ser Pro Phe Val Val Gln Val Gly Glu
435    440    445
Ala Cys Asn Pro Asn Ala Cys Arg Ala Ser Gly Arg Gly Leu Gln Pro
450    455    460
Lys Gly Val Arg Ile Arg Glu Thr Thr Asp Phe Lys Val Asp Thr Lys
465    470    475    480
Ala Ala Gly Ser Gly Glu Leu Gly Val Thr Met Lys Gly Pro Lys Gly
485    490    495
Leu Glu Glu Leu Val Lys Gln Lys Asp Phe Leu Asp Gly Val Tyr Ala
500    505    510
Phe Glu Tyr Tyr Pro Ser Thr Pro Gly Arg Tyr Ser Ile Ala Ile Thr

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- 450 -

Gly	Thr	Gly	Gly	Leu	Gly	Leu	Thr	Val	Glu	Gly	Pro	Cys	Glu	Ala
1070						1075					1080			
Lys	Ile	Glu	Cys	Ser	Asp	Asn	Gly	Asp	Gly	Thr	Cys	Ser	Val	Ser
1085						1090					1095			
Tyr	Leu	Pro	Thr	Lys	Pro	Gly	Glu	Tyr	Phe	Val	Asn	Ile	Leu	Phe
1100						1105					1110			
Glu	Glu	Val	His	Ile	Pro	Gly	Ser	Pro	Phe	Lys	Ala	Asp	Ile	Glu
1115						1120					1125			
Met	Pro	Phe	Asp	Pro	Ser	Lys	Val	Val	Ala	Ser	Gly	Pro	Gly	Leu
1130						1135					1140			
Glu	His	Gly	Lys	Val	Gly	Glu	Ala	Gly	Leu	Leu	Ser	Val	Asn	Cys
1145						1150					1155			
Ser	Glu	Ala	Gly	Pro	Gly	Ala	Leu	Gly	Leu	Glu	Ala	Val	Ser	Asp
1160						1165					1170			
Ser	Gly	Thr	Lys	Ala	Glu	Val	Ser	Ile	Gln	Asn	Asn	Lys	Asp	Gly
1175						1180					1185			
Thr	Tyr	Ala	Val	Thr	Tyr	Val	Pro	Leu	Thr	Ala	Gly	Met	Tyr	Thr
1190						1195					1200			
Leu	Thr	Met	Lys	Tyr	Gly	Gly	Glu	Leu	Val	Pro	His	Phe	Pro	Ala
1205						1210					1215			
Arg	Val	Lys	Val	Glu	Pro	Ala	Val	Asp	Thr	Ser	Arg	Ile	Lys	Val
1220						1225					1230			
Phe	Gly	Pro	Gly	Ile	Glu	Gly	Lys	Asp	Val	Phe	Arg	Glu	Ala	Thr
1235						1240					1245			
Thr	Asp	Phe	Thr	Val	Asp	Ser	Arg	Pro	Leu	Thr	Gln	Val	Gly	Gly
1250						1255					1260			
Asp	His	Ile	Lys	Ala	His	Ile	Ala	Asn	Pro	Ser	Gly	Ala	Ser	Thr
1265						1270					1275			
Glu	Cys	Phe	Val	Thr	Asp	Asn	Ala	Asp	Gly	Thr	Tyr	Gln	Val	Glu
1280						1285					1290			
Tyr	Thr	Pro	Phe	Glu	Lys	Gly	Leu	His	Val	Val	Glu	Val	Thr	Tyr
1295						1300					1305			
Asp	Asp	Val	Pro	Ile	Pro	Asn	Ser	Pro	Phe	Lys	Val	Ala	Val	Thr
1310						1315					1320			
Glu	Gly	Cys	Gln	Pro	Ser	Arg	Val	Gln	Ala	Gln	Gly	Pro	Gly	Leu
1325						1330					1335			
Lys	Glu	Ala	Phe	Thr	Asn	Lys	Pro	Asn	Val	Phe	Thr	Val	Val	Thr
1340						1345					1350			
Arg	Gly	Ala	Gly	Ile	Gly	Gly	Leu	Gly	Ile	Thr	Val	Glu	Gly	Pro
1355						1360					1365			
Ser	Glu	Ser	Lys	Ile	Asn	Cys	Arg	Asp	Asn	Lys	Asp	Gly	Ser	Cys
1370						1375					1380			
Ser	Ala	Glu	Tyr	Ile	Pro	Phe	Ala	Pro	Gly	Asp	Tyr	Asp	Val	Asn
1385						1390					1395			
Ile	Thr	Tyr	Gly	Gly	Ala	His	Ile	Pro	Gly	Ser	Pro	Phe	Arg	Val
1400						1405					1410			
Pro	Val	Lys	Asp	Val	Val	Asp	Pro	Ser	Lys	Val	Lys	Ile	Ala	Gly
1415						1420					1425			
Pro	Gly	Leu	Gly	Ser	Gly	Val	Arg	Ala	Arg	Val	Leu	Gln	Ser	Phe
1430						1435					1440			
Thr	Val	Asp	Ser	Ser	Lys	Ala	Gly	Leu	Ala	Pro	Leu	Glu	Val	Arg
1445						1450					1455			
Val	Leu	Gly	Pro	Arg	Gly	Leu	Val	Glu	Pro	Val	Asn	Met	Val	Asp
1460						1465					1470			
Asn	Gly	Asp	Gly	Thr	His	Thr	Val	Thr	Tyr	Thr	Pro	Ser	Gln	Glu
1475						1480					1485			
Gly	Pro	Tyr	Met	Val	Ser	Val	Lys	Tyr	Ala	Asp	Glu	Glu	Ile	Pro
1490						1495					1500			
Arg	Ser	Pro	Phe	Lys	Val	Lys	Val	Leu	Pro	Thr	Tyr	Asp	Ala	Ser
1505						1510					1515			
Lys	Val	Thr	Ala	Ser	Gly	Pro	Gly	Leu	Ser	Ser	Tyr	Gly	Val	Pro
1520						1525					1530			
Ala	Ser	Leu	Pro	Val	Asp	Phe	Ala	Ile	Asp	Ala	Arg	Asp	Ala	Gly
1535						1540					1545			
Glu	Gly	Leu	Leu	Ala	Val	Gln	Ile	Thr	Asp	Gln	Glu	Gly	Lys	Pro
1550						1555					1560			
Lys	Arg	Ala	Ile	Val	His	Asp	Asn	Lys	Asp	Gly	Thr	Tyr	Ala	Val
1565						1570					1575			
Thr	Tyr	Ile	Pro	Asp	Lys	Thr	Gly	Arg	Tyr	Met	Ile	Gly	Val	Thr

1580	Tyr Gly Gly Asp Asp Ile	1585	Pro Leu Ser Pro Tyr	1590	Arg Ile Arg Ala
1595	Thr Gln Thr Gly Asp Ala	1600	Ser Lys Cys Leu Ala	1605	Thr Gly Pro Gly
1610	Ile Ala Ser Thr Val Lys	1615	Thr Gly Glu Glu Val	1620	Gly Phe Val Val
1625	Asp Ala Lys Thr Ala Gly	1630	Lys Gly Lys Val Thr	1635	Cys Thr Val Leu
1640	Thr Pro Asp Gly Thr Glu	1645	Ala Glu Ala Asp Val	1650	Ile Glu Asn Glu
1655	Asp Gly Thr Tyr Asp Ile	1660	Phe Tyr Thr Ala Ala	1665	Lys Pro Gly Thr
1670	Tyr Val Ile Tyr Val Arg	1675	Phe Gly Gly Val Asp	1680	Ile Pro Asn Ser
1685	Pro Phe Thr Val Met Ala	1690	Thr Asp Gly Glu Val	1695	Thr Ala Val Glu
1700	Glu Ala Pro Val Asn Ala	1705	Cys Pro Pro Gly Phe	1710	Arg Pro Trp Val
1715	Thr Glu Glu Ala Tyr Val	1720	Pro Val Ser Asp Met	1725	Asn Gly Leu Gly
1730	Phe Lys Pro Phe Asp Leu	1735	Val Ile Pro Phe Ala	1740	Val Arg Lys Gly
1745	Glu Ile Thr Gly Glu Val	1750	His Met Pro Ser Gly	1755	Lys Thr Ala Thr
1760	Pro Glu Ile Val Asp Asn	1765	Lys Asp Gly Thr Val	1770	Thr Val Arg Tyr
1775	Ala Pro Thr Glu Val Gly	1780	Leu His Glu Met His	1785	Ile Lys Tyr Met
1790	Gly Ser His Ile Pro Glu	1795	Ser Pro Leu Gln Phe	1800	Tyr Val Asn Tyr
1805	Pro Asn Ser Gly Ser Val	1810	Ser Ala Tyr Gly Pro	1815	Gly Leu Val Tyr
1820	Gly Val Ala Asn Lys Thr	1825	Ala Thr Phe Thr Ile	1830	Val Thr Glu Asp
1835	Ala Gly Glu Gly Gly Leu	1840	Asp Leu Ala Ile Glu	1845	Gly Pro Ser Lys
1850	Ala Glu Ile Ser Cys Ile	1855	Asp Asn Lys Asp Gly	1860	Thr Cys Thr Val
1865	Thr Tyr Leu Pro Thr Leu	1870	Pro Gly Asp Tyr Ser	1875	Ile Leu Val Lys
1880	Tyr Asn Asp Lys His Ile	1885	Pro Gly Ser Pro Phe	1890	Thr Ala Lys Ile
1895	Thr Asp Asp Ser Arg Arg	1900	Cys Ser Gln Val Lys	1905	Leu Gly Ser Ala
1910	Ala Asp Phe Leu Leu Asp	1915	Ile Ser Glu Thr Asp	1920	Leu Ser Ser Leu
1925	Thr Ala Ser Ile Lys Ala	1930	Pro Ser Gly Arg Asp	1935	Glu Pro Cys Leu
1940	Leu Lys Arg Leu Pro Asn	1945	Asn His Ile Gly Ile	1950	Ser Phe Ile Pro
1955	Arg Glu Val Gly Glu His	1960	Leu Val Ser Ile Lys	1965	Lys Asn Gly Asn
1970	His Val Ala Asn Ser Pro	1975	Val Ser Ile Met Val	1980	Val Gln Ser Glu
1985	Ile Gly Asp Ala Arg Arg	1990	Ala Lys Val Tyr Gly	1995	Arg Gly Leu Ser
2000	Glu Gly Arg Thr Phe Glu	2005	Met Ser Asp Phe Ile	2010	Val Asp Thr Arg
2015	Asp Ala Gly Tyr Gly Gly	2020	Ile Ser Leu Ala Val	2025	Glu Gly Pro Ser
2030	Lys Val Asp Ile Gln Thr	2035	Glu Asp Leu Glu Asp	2040	Gly Thr Cys Lys
2045	Val Ser Tyr Phe Pro Thr	2050	Val Pro Gly Val Tyr	2055	Ile Val Ser Thr
2060	Lys Phe Ala Asp Glu His	2065	Val Pro Gly Ser Pro	2070	Phe Thr Val Lys
2075	Ile Ser Gly Glu Gly Arg	2080	Val Lys Glu Ser Ile	2085	Thr Arg Thr Ser
2090		2095		2100	

Arg	Ala	Pro	Ser	Val	Ala	Thr	Val	Gly	Ser	Ile	Cys	Asp	Leu	Asn
2105						2110					2115			
Leu	Lys	Ile	Pro	Glu	Ile	Asn	Ser	Ser	Asp	Met	Ser	Ala	His	Val
2120						2125					2130			
Thr	Ser	Pro	Ser	Gly	Arg	Val	Thr	Glu	Ala	Glu	Ile	Val	Pro	Met
2135						2140					2145			
Gly	Lys	Asn	Ser	His	Cys	Val	Arg	Phe	Val	Pro	Gln	Glu	Met	Gly
2150						2155					2160			
Val	His	Thr	Val	Ser	Val	Lys	Tyr	Arg	Gly	Gln	His	Val	Thr	Gly
2165						2170					2175			
Ser	Pro	Phe	Gln	Phe	Thr	Val	Gly	Pro	Leu	Gly	Glu	Gly	Gly	Ala
2180						2185					2190			
His	Lys	Val	Arg	Ala	Gly	Gly	Pro	Gly	Leu	Glu	Arg	Gly	Glu	Ala
2195						2200					2205			
Gly	Val	Pro	Ala	Glu	Phe	Ser	Ile	Trp	Thr	Arg	Glu	Ala	Gly	Ala
2210						2215					2220			
Gly	Gly	Leu	Ser	Ile	Ala	Val	Glu	Gly	Pro	Ser	Lys	Ala	Glu	Ile
2225						2230					2235			
Thr	Phe	Asp	Asp	His	Lys	Asn	Gly	Ser	Cys	Gly	Val	Ser	Tyr	Ile
2240						2245					2250			
Ala	Gln	Glu	Pro	Gly	Asn	Tyr	Glu	Val	Ser	Ile	Lys	Phe	Asn	Asp
2255						2260					2265			
Glu	His	Ile	Pro	Glu	Ser	Pro	Tyr	Leu	Val	Pro	Val	Ile	Ala	Pro
2270						2275					2280			
Ser	Asp	Asp	Ala	Arg	Arg	Leu	Thr	Val	Met	Ser	Leu	Gln	Glu	Ser
2285						2290					2295			
Gly	Leu	Lys	Val	Asn	Gln	Pro	Ala	Ser	Phe	Ala	Ile	Arg	Leu	Asn
2300						2305					2310			
Gly	Ala	Lys	Gly	Lys	Ile	Asp	Ala	Lys	Val	His	Ser	Pro	Ser	Gly
2315						2320					2325			
Ala	Val	Glu	Glu	Cys	His	Val	Ser	Glu	Leu	Glu	Pro	Asp	Lys	Tyr
2330						2335					2340			
Ala	Val	Arg	Phe	Ile	Pro	His	Glu	Asn	Gly	Val	His	Thr	Ile	Asp
2345						2350					2355			
Val	Lys	Phe	Asn	Gly	Ser	His	Val	Val	Gly	Ser	Pro	Phe	Lys	Val
2360						2365					2370			
Arg	Val	Gly	Glu	Pro	Gly	Gln	Ala	Gly	Asn	Pro	Ala	Leu	Val	Ser
2375						2380					2385			
Ala	Tyr	Gly	Thr	Gly	Leu	Glu	Gly	Gly	Thr	Thr	Gly	Ile	Gln	Ser
2390						2395					2400			
Glu	Phe	Phe	Ile	Asn	Thr	Thr	Arg	Ala	Gly	Pro	Gly	Thr	Leu	Ser
2405						2410					2415			
Val	Thr	Ile	Glu	Gly	Pro	Ser	Lys	Val	Lys	Met	Asp	Cys	Gln	Glu
2420						2425					2430			
Thr	Pro	Glu	Gly	Tyr	Lys	Val	Met	Tyr	Thr	Pro	Met	Ala	Pro	Gly
2435						2440					2445			
Asn	Tyr	Leu	Ile	Ser	Val	Lys	Tyr	Gly	Gly	Pro	Asn	His	Ile	Val
2450						2455					2460			
Gly	Ser	Pro	Phe	Lys	Ala	Lys	Val	Thr	Gly	Gln	Arg	Leu	Val	Ser
2465						2470					2475			
Pro	Gly	Ser	Ala	Asn	Glu	Thr	Ser	Ser	Ile	Leu	Val	Glu	Ser	Val
2480						2485					2490			
Thr	Arg	Ser	Ser	Thr	Glu	Thr	Cys	Tyr	Ser	Ala	Ile	Pro	Lys	Ala
2495						2500					2505			
Ser	Ser	Asp	Ala	Ser	Lys	Val	Thr	Ser	Lys	Gly	Ala	Gly	Leu	Ser
2510						2515					2520			
Lys	Ala	Phe	Val	Gly	Gln	Lys	Ser	Ser	Phe	Leu	Val	Asp	Cys	Ser
2525						2530					2535			
Lys	Ala	Gly	Ser	Asn	Met	Leu	Leu	Ile	Gly	Val	His	Gly	Pro	Thr
2540						2545					2550			
Thr	Pro	Cys	Glu	Glu	Val	Ser	Met	Lys	His	Val	Gly	Asn	Gln	Gln
2555						2560					2565			
Tyr	Asn	Val	Thr	Tyr	Val	Val	Lys	Glu	Arg	Gly	Asp	Tyr	Val	Leu
2570						2575					2580			
Ala	Val	Lys	Trp	Gly	Glu	Glu	His	Ile	Pro	Gly	Ser	Pro	Phe	His
2585						2590					2595			
Val	Thr	Val	Pro											
2600														

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<210> 504
<211> 760
<212> PRT
<213> Homo sapiens
<400> 504
Met Met Asp Gln Ala Arg Ser Ala Phe Ser Asn Leu Phe Gly Gly Glu
1      5      10      15
Pro Leu Ser Tyr Thr Arg Phe Ser Leu Ala Arg Gln Val Asp Gly Asp
20     25     30
Asn Ser His Val Glu Met Lys Leu Ala Val Asp Glu Glu Glu Asn Ala
35     40     45
Asp Asn Asn Thr Lys Ala Asn Val Thr Lys Pro Lys Arg Cys Ser Gly
50     55     60
Ser Ile Cys Tyr Gly Thr Ile Ala Val Ile Val Phe Phe Leu Ile Gly
65     70     75     80
Phe Met Ile Gly Tyr Leu Gly Tyr Cys Lys Gly Val Glu Pro Lys Thr
85     90     95
Glu Cys Glu Arg Leu Ala Gly Thr Glu Ser Pro Val Arg Glu Glu Pro
100    105    110
Gly Glu Asp Phe Pro Ala Ala Arg Arg Leu Tyr Trp Asp Asp Leu Lys
115    120    125
Arg Lys Leu Ser Glu Lys Leu Asp Ser Thr Asp Phe Thr Ser Thr Ile
130    135    140
Lys Leu Leu Asn Glu Asn Ser Tyr Val Pro Arg Glu Ala Gly Ser Gln
145    150    155    160
Lys Asp Glu Asn Leu Ala Leu Tyr Val Glu Asn Gln Phe Arg Glu Phe
165    170    175
Lys Leu Ser Lys Val Trp Arg Asp Gln His Phe Val Lys Ile Gln Val
180    185    190
Lys Asp Ser Ala Gln Asn Ser Val Ile Ile Val Asp Lys Asn Gly Arg
195    200    205
Leu Val Tyr Leu Val Glu Asn Pro Gly Gly Tyr Val Ala Tyr Ser Lys
210    215    220
Ala Ala Thr Val Thr Gly Lys Leu Val His Ala Asn Phe Gly Thr Lys
225    230    235    240
Lys Asp Phe Glu Asp Leu Tyr Thr Pro Val Asn Gly Ser Ile Val Ile
245    250    255
Val Arg Ala Gly Lys Ile Thr Phe Ala Glu Lys Val Ala Asn Ala Glu
260    265    270
Ser Leu Asn Ala Ile Gly Val Leu Ile Tyr Met Asp Gln Thr Lys Phe
275    280    285
Pro Ile Val Asn Ala Glu Leu Ser Phe Phe Gly His Ala His Leu Gly
290    295    300
Thr Gly Asp Pro Tyr Thr Pro Gly Phe Pro Ser Phe Asn His Thr Gln
305    310    315    320
Phe Pro Pro Ser Arg Ser Ser Gly Leu Pro Asn Ile Pro Val Gln Thr
325    330    335
Ile Ser Arg Ala Ala Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp
340    345    350
Cys Pro Ser Asp Trp Lys Thr Asp Ser Thr Cys Arg Met Val Thr Ser
355    360    365
Glu Ser Lys Asn Val Lys Leu Thr Val Ser Asn Val Leu Lys Glu Ile
370    375    380
Lys Ile Leu Asn Ile Phe Gly Val Ile Lys Gly Phe Val Glu Pro Asp
385    390    395    400
His Tyr Val Val Val Gly Ala Gln Arg Asp Ala Trp Gly Pro Gly Ala
405    410    415
Ala Lys Ser Gly Val Gly Thr Ala Leu Leu Lys Leu Ala Gln Met
420    425    430
Phe Ser Asp Met Val Leu Lys Asp Gly Phe Gln Pro Ser Arg Ser Ile
435    440    445
Ile Phe Ala Ser Trp Ser Ala Gly Asp Phe Gly Ser Val Gly Ala Thr
450    455    460
Glu Trp Leu Glu Gly Tyr Leu Ser Ser Leu His Leu Lys Ala Phe Thr
465    470    475    480
Tyr Ile Asn Leu Asp Lys Ala Val Leu Gly Thr Ser Asn Phe Lys Val
485    490    495
Ser Ala Ser Pro Leu Leu Tyr Thr Leu Ile Glu Lys Thr Met Gln Asn
500    505    510

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Val Lys His Pro Val Thr Gly Gln Phe Leu Tyr Gln Asp Ser Asn Trp
 515 520 525
 Ala Ser Lys Val Glu Lys Leu Thr Leu Asp Asn Ala Ala Phe Pro Phe
 530 535 540
 Leu Ala Tyr Ser Gly Ile Pro Ala Val Ser Phe Cys Phe Cys Glu Asp
 545 550 555 560
 Thr Asp Tyr Pro Tyr Leu Gly Thr Thr Met Asp Thr Tyr Lys Glu Leu
 565 570
 Ile Glu Arg Ile Pro Glu Leu Asn Lys Val Ala Arg Ala Ala Glu
 580 585 590
 Val Ala Gly Gln Phe Val Ile Lys Leu Thr His Asp Val Glu Leu Asn
 595 600 605
 Leu Asp Tyr Glu Arg Tyr Asn Ser Gln Leu Leu Ser Phe Val Arg Asp
 610 615 620
 Leu Asn Gln Tyr Arg Ala Asp Ile Lys Glu Met Gly Leu Ser Leu Gln
 625 630 635 640
 Trp Leu Tyr Ser Ala Arg Gly Asp Phe Phe Arg Ala Thr Ser Arg Leu
 645 650 655
 Thr Thr Asp Phe Gly Asn Ala Glu Lys Thr Asp Arg Phe Val Met Lys
 660 665 670
 Lys Leu Asn Asp Arg Val Met Arg Val Glu Tyr His Phe Leu Ser Pro
 675 680 685
 Tyr Val Ser Pro Lys Glu Ser Pro Phe Arg His Val Phe Trp Gly Ser
 690 695 700
 Gly Ser His Thr Leu Pro Ala Leu Leu Glu Asn Leu Lys Leu Arg Lys
 705 710 715 720
 Gln Asn Asn Gly Ala Phe Asn Glu Thr Leu Phe Arg Asn Gln Leu Ala
 725 730 735
 Leu Ala Thr Trp Thr Ile Gln Gly Ala Ala Asn Ala Leu Ser Gly Asp
 740 745 750
 Val Trp Asp Ile Asp Asn Glu Phe
 755 760

<210> 505

<211> 611

<212> PRT

<213> Homo sapiens

<400> 505

Met Ala Ala Ser Ala Lys Lys Lys Asn Lys Lys Gly Lys Thr Ile Ser
 1 5 10 15
 Leu Thr Asp Phe Leu Ala Glu Asp Gly Gly Thr Gly Gly Gly Ser Thr
 20 25 30
 Tyr Val Ser Lys Pro Val Ser Trp Ala Asp Glu Thr Asp Asp Leu Glu
 35 40 45
 Gly Asp Val Ser Thr Thr Trp His Ser Asn Asp Asp Asp Val Tyr Arg
 50 55 60
 Ala Pro Pro Ile Asp Arg Ser Ile Leu Pro Thr Ala Pro Arg Ala Ala
 65 70 75 80
 Arg Glu Pro Asn Ile Asp Arg Ser Arg Leu Pro Lys Ser Pro Pro Tyr
 85 90 95
 Thr Ala Phe Leu Gly Asn Leu Pro Tyr Asp Val Thr Glu Glu Ser Ile
 100 105 110
 Lys Glu Phe Phe Arg Gly Leu Asn Ile Ser Ala Val Arg Leu Pro Arg
 115 120 125
 Glu Pro Ser Asn Pro Glu Arg Leu Lys Gly Phe Gly Tyr Ala Glu Phe
 130 135 140
 Glu Asp Leu Asp Ser Leu Leu Ser Ala Leu Ser Leu Asn Glu Glu Ser
 145 150 155 160
 Leu Gly Asn Arg Arg Ile Arg Val Asp Val Ala Asp Gln Ala Gln Asp
 165 170 175
 Lys Asp Arg Asp Asp Arg Ser Phe Gly Arg Asp Arg Asn Arg Asp Ser
 180 185 190
 Asp Lys Thr Asp Thr Asp Trp Arg Ala Arg Pro Ala Thr Asp Ser Phe
 195 200 205
 Asp Asp Tyr Pro Pro Arg Arg Gly Asp Asp Ser Phe Gly Asp Lys Tyr
 210 215 220
 Arg Asp Arg Tyr Asp Ser Asp Arg Tyr Arg Asp Gly Tyr Arg Asp Gly
 225 230 235 240
 Tyr Arg Asp Gly Pro Arg Arg Asp Met Asp Arg Tyr Gly Gly Arg Asp

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                245                250                255
Arg Tyr Asp Asp Arg Gly Ser Arg Asp Tyr Asp Arg Gly Tyr Asp Ser
                260                265                270
Arg Ile Gly Ser Gly Arg Arg Ala Phe Gly Ser Gly Tyr Arg Arg Asp
                275                280                285
Asp Asp Tyr Arg Gly Gly Gly Asp Arg Tyr Glu Asp Arg Tyr Asp Arg
                290                295                300
Arg Asp Asp Arg Ser Trp Ser Ser Arg Asp Asp Tyr Ser Arg Asp Asp
305                310                315                320
Tyr Arg Arg Asp Asp Arg Gly Pro Pro Gln Arg Pro Lys Leu Asn Leu
                325                330                335
Lys Pro Arg Ser Thr Pro Glu Glu Asp Asp Ser Ser Ala Ser Thr Ser
                340                345                350
Gln Ser Thr Arg Ala Ala Ser Ile Phe Gly Gly Ala Lys Pro Val Asp
                355                360                365
Thr Ala Ala Arg Glu Arg Glu Val Glu Glu Arg Leu Gln Lys Glu Gln
                370                375                380
Glu Lys Leu Gln Arg Gln Trp Asn Glu Pro Lys Leu Glu Arg Arg Pro
385                390                395                400
Arg Glu Arg His Pro Ser Trp Arg Ser Glu Glu Thr Gln Glu Arg Glu
                405                410                415
Arg Ser Arg Thr Gly Ser Glu Ser Ser Gln Thr Gly Thr Ser Thr Thr
                420                425                430
Ser Ser Arg Asn Ala Arg Arg Arg Glu Ser Glu Lys Ser Leu Glu Asn
                435                440                445
Glu Thr Leu Asn Lys Glu Glu Asp Cys His Ser Pro Thr Ser Lys Pro
                450                455                460
Pro Lys Pro Asp Gln Pro Leu Lys Val Met Pro Ala Pro Pro Pro Lys
465                470                475                480
Glu Asn Ala Trp Val Lys Arg Ser Ser Asn Pro Pro Ala Arg Ser Gln
                485                490                495
Ser Ser Asp Thr Glu Gln Gln Ser Pro Thr Ser Gly Gly Gly Lys Val
                500                505                510
Ala Pro Ala Gln Pro Ser Glu Glu Gly Pro Gly Arg Lys Asp Glu Asn
                515                520                525
Lys Val Asp Gly Met Asn Ala Pro Lys Gly Gln Thr Gly Asn Ser Ser
                530                535                540
Arg Gly Pro Gly Asp Gly Gly Asn Arg Asp His Trp Lys Glu Ser Asp
545                550                555                560
Arg Lys Asp Gly Lys Lys Asp Gln Asp Ser Arg Ser Ala Pro Glu Pro
                565                570                575
Lys Lys Pro Glu Glu Asn Pro Ala Ser Lys Phe Ser Ser Ala Ser Lys
                580                585                590
Tyr Ala Ala Leu Ser Val Asp Gly Glu Asp Glu Asn Glu Gly Glu Asp
                595                600                605
Tyr Ala Glu
610

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<210> 506

<211> 379

<212> PRT

<213> Homo sapiens

<400> 506

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Met Ala Ala Ala Ala Gln Gly Gly Gly Gly Glu Pro Arg Arg
1                5                10                15
Thr Glu Gly Val Gly Pro Gly Val Pro Gly Glu Val Glu Met Val Lys
                20                25                30
Gly Gln Pro Phe Asp Val Gly Pro Arg Tyr Thr Gln Leu Gln Tyr Ile
                35                40                45
Gly Glu Gly Ala Tyr Gly Met Val Ser Ser Ala Tyr Asp His Val Arg
50                55                60
Lys Thr Arg Val Ala Ile Lys Lys Ile Ser Pro Phe Glu His Gln Thr
65                70                75                80
Tyr Cys Gln Arg Thr Leu Arg Glu Ile Gln Ile Leu Leu Arg Phe Arg
                85                90                95
His Glu Asn Val Ile Gly Ile Arg Asp Ile Leu Arg Ala Ser Thr Leu
                100                105                110
Glu Ala Met Arg Asp Val Tyr Ile Val Gln Asp Leu Met Glu Thr Asp
                115                120                125

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Leu Tyr Lys Leu Leu Lys Ser Gln Gln Leu Ser Asn Asp His Ile Cys
 130 135 140
 Tyr Phe Leu Tyr Gln Ile Leu Arg Gly Leu Lys Tyr Ile His Ser Ala
 145 150 155 160
 Asn Val Leu His Arg Asp Leu Lys Pro Ser Asn Leu Leu Ser Asn Thr
 165 170 175
 Thr Cys Asp Leu Lys Ile Cys Asp Phe Gly Leu Ala Arg Ile Ala Asp
 180 185 190
 Pro Glu His Asp His Thr Gly Phe Leu Thr Glu Tyr Val Ala Thr Arg
 195 200 205
 Trp Tyr Arg Ala Pro Glu Ile Met Leu Asn Ser Lys Gly Tyr Thr Lys
 210 215 220
 Ser Ile Asp Ile Trp Ser Val Gly Cys Ile Leu Ala Glu Met Leu Ser
 225 230 235 240
 Asn Arg Pro Ile Phe Pro Gly Lys His Tyr Leu Asp Gln Leu Asn His
 245 250 255
 Ile Leu Gly Ile Leu Gly Ser Pro Ser Gln Glu Asp Leu Asn Cys Ile
 260 265 270
 Ile Asn Met Lys Ala Arg Asn Tyr Leu Gln Ser Leu Pro Ser Lys Thr
 275 280 285
 Lys Val Ala Trp Ala Lys Leu Phe Pro Lys Ser Asp Ser Lys Ala Leu
 290 295 300
 Asp Leu Leu Asp Arg Met Leu Thr Phe Asn Pro Asn Lys Arg Ile Thr
 305 310 315 320
 Val Glu Glu Ala Leu Ala His Pro Tyr Leu Glu Gln Tyr Tyr Asp Pro
 325 330 335
 Thr Asp Glu Pro Val Ala Glu Glu Pro Phe Thr Phe Ala Met Glu Leu
 340 345 350
 Asp Asp Leu Pro Lys Glu Arg Leu Lys Glu Leu Ile Phe Gln Glu Thr
 355 360 365
 Ala Arg Phe Gln Pro Gly Val Leu Glu Ala Pro
 370 375

<210> 507
 <211> 351
 <212> PRT
 <213> Homo sapiens
 <400> 507

Met Thr Trp Ser Ala Thr Ala Arg Gly Ala His Gln Pro Asp Asn Thr
 1 5 10 15
 Ala Phe Thr Gln Gln Arg Leu Pro Ala Trp Gln Pro Leu Leu Ser Ala
 20 25 30
 Ser Ile Ala Leu Pro Leu Phe Phe Cys Ala Gly Leu Ala Phe Ile Gly
 35 40 45
 Leu Gly Leu Gly Leu Tyr Tyr Ser Ser Asn Gly Ile Lys Glu Leu Glu
 50 55 60
 Tyr Asp Tyr Thr Gly Asp Pro Gly Thr Gly Asn Cys Ser Val Cys Ala
 65 70 75 80
 Ala Ala Gly Gln Gly Arg Ala Leu Pro Pro Cys Ser Cys Ala Trp
 85 90 95
 Tyr Phe Ser Leu Pro Glu Leu Phe Gln Gly Pro Val Tyr Leu Tyr Tyr
 100 105 110
 Glu Leu Thr Asn Phe Tyr Gln Asn Asn Arg Arg Tyr Gly Val Ser Arg
 115 120 125
 Asp Asp Ala Gln Leu Ser Gly Leu Pro Ser Ala Leu Arg His Pro Val
 130 135 140
 Asn Glu Cys Ala Pro Tyr Gln Arg Ser Ala Ala Gly Leu Pro Ile Ala
 145 150 155 160
 Pro Cys Gly Ala Ile Ala Asn Ser Leu Phe Asn Asp Ser Phe Ser Leu
 165 170 175
 Trp His Gln Arg Gln Pro Gly Gly Pro Tyr Val Glu Val Pro Leu Asp
 180 185 190
 Arg Ser Gly Ile Ala Trp Trp Thr Asp Tyr His Val Lys Phe Arg Asn
 195 200 205
 Pro Pro Leu Val Asn Gly Ser Leu Ala Leu Ala Phe Gln Gly Thr Ala
 210 215 220
 Pro Pro Pro Asn Trp Arg Arg Pro Val Tyr Glu Leu Ser Pro Asp Pro
 225 230 235 240
 Asn Asn Thr Gly Phe Ile Asn Gln Asp Phe Val Val Trp Met Arg Thr

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<210> 508
<211> 524
<212> PRT
<213> Homo sapiens
<400> 508
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- 458 -

Ala Thr Ser Ala Ser Ile Gly Ala Ala Gly Val Pro Gln Ala Gly Leu
 405 410 415
 Val Thr Met Val Ile Val Leu Ser Ala Val Gly Leu Pro Ala Glu Asp
 420 425 430
 Val Thr Leu Ile Ile Ala Val Asp Trp Leu Leu Asp Arg Phe Arg Thr
 435 440 445
 Met Val Asn Val Leu Gly Asp Ala Phe Gly Thr Gly Ile Val Glu Lys
 450 455 460
 Leu Ser Lys Lys Glu Leu Glu Gln Met Asp Val Ser Ser Glu Val Asn
 465 470 475 480
 Ile Val Asn Pro Phe Ala Leu Glu Ser Thr Ile Leu Asp Asn Glu Asp
 485 490 495
 Ser Asp Thr Lys Lys Ser Tyr Val Asn Gly Gly Phe Ala Val Asp Lys
 500 505 510
 Ser Asp Thr Ile Ser Phe Thr Gln Thr Ser Gln Phe
 515 520

<210> 509

<211> 416

<212> PRT

<213> Homo sapiens

<400> 509

Met Ala His Ser Pro Val Ala Val Gln Val Pro Gly Met Gln Asn Asn
 1 5 10 15
 Ile Ala Asp Pro Glu Glu Leu Phe Thr Lys Leu Glu Arg Ile Gly Lys
 20 25 30
 Gly Ser Phe Gly Glu Val Phe Lys Gly Ile Asp Asn Arg Thr Gln Gln
 35 40 45
 Val Val Ala Ile Lys Ile Ile Asp Leu Glu Glu Ala Glu Asp Glu Ile
 50 55 60
 Glu Asp Ile Gln Gln Glu Ile Thr Val Leu Ser Gln Cys Asp Ser Ser
 65 70 75 80
 Tyr Val Thr Lys Tyr Tyr Gly Ser Tyr Leu Lys Gly Ser Lys Leu Trp
 85 90 95
 Ile Ile Met Glu Tyr Leu Gly Gly Gly Ser Ala Leu Asp Leu Leu Arg
 100 105 110
 Ala Gly Pro Phe Asp Glu Phe Gln Ile Ala Thr Met Leu Lys Glu Ile
 115 120 125
 Leu Lys Gly Leu Asp Tyr Leu His Ser Glu Lys Lys Ile His Arg Asp
 130 135 140
 Ile Lys Ala Ala Asn Val Leu Leu Ser Glu Gln Gly Asp Val Lys Leu
 145 150 155 160
 Ala Asp Phe Gly Val Ala Gly Gln Leu Thr Asp Thr Gln Ile Lys Arg
 165 170 175
 Asn Thr Phe Val Gly Thr Pro Phe Trp Met Ala Pro Glu Val Ile Gln
 180 185 190
 Gln Ser Ala Tyr Asp Ser Lys Ala Asp Ile Trp Ser Leu Gly Ile Thr
 195 200 205
 Ala Ile Glu Leu Ala Lys Gly Glu Pro Pro Asn Ser Asp Met His Pro
 210 215 220
 Met Arg Val Leu Phe Leu Ile Pro Lys Asn Asn Pro Pro Thr Leu Val
 225 230 235 240
 Gly Asp Phe Thr Lys Ser Phe Lys Glu Phe Ile Asp Ala Cys Leu Asn
 245 250 255
 Lys Asp Pro Ser Phe Arg Pro Thr Ala Lys Glu Leu Leu Lys His Lys
 260 265 270
 Phe Ile Val Lys Asn Ser Lys Lys Thr Ser Tyr Leu Thr Glu Leu Ile
 275 280 285
 Asp Arg Phe Lys Arg Trp Lys Ala Glu Gly His Ser Asp Asp Glu Ser
 290 295 300
 Asp Ser Glu Gly Ser Asp Ser Glu Ser Thr Ser Arg Glu Asn Asn Thr
 305 310 315 320
 His Pro Glu Trp Ser Phe Thr Thr Val Arg Lys Lys Pro Asp Pro Lys
 325 330 335
 Lys Val Gln Asn Gly Ala Glu Gln Asp Leu Val Gln Thr Leu Ser Cys
 340 345 350
 Leu Ser Met Ile Ile Thr Pro Ala Phe Ala Glu Leu Lys Gln Gln Asp
 355 360 365
 Glu Asn Asn Ala Ser Arg Asn Gln Ala Ile Glu Glu Leu Glu Lys Ser

370	Ile	Ala	Val	Ala	Glu	Ala	Ala	Cys	Pro	Gly	Ile	Thr	Asp	Lys	Met	Val
385	Lys	Lys	Leu	Ile	Glu	Lys	Phe	Gln	Lys	Cys	Ser	Ala	Asp	Glu	Ser	Pro
				405						410					415	

<210> 510
 <211> 285
 <212> PRT
 <213> Homo sapiens
 <400> 510

Met	Val	Met	Arg	Pro	Leu	Trp	Ser	Leu	Leu	Leu	Trp	Glu	Ala	Leu	Leu
1			5						10					15	
Pro	Ile	Thr	Val	Thr	Gly	Ala	Gln	Val	Leu	Ser	Lys	Val	Gly	Gly	Ser
			20					25					30		
Val	Leu	Leu	Val	Ala	Ala	Arg	Pro	Pro	Gly	Phe	Gln	Val	Arg	Glu	Ala
			35				40					45			
Ile	Trp	Arg	Ser	Leu	Trp	Pro	Ser	Glu	Glu	Leu	Leu	Ala	Thr	Phe	Phe
	50					55					60				
Arg	Gly	Ser	Leu	Glu	Thr	Leu	Tyr	His	Ser	Arg	Phe	Leu	Gly	Arg	Ala
65					70				75					80	
Gln	Leu	His	Ser	Asn	Leu	Ser	Leu	Glu	Leu	Gly	Pro	Leu	Glu	Ser	Gly
				85					90					95	
Asp	Ser	Gly	Asn	Phe	Ser	Val	Leu	Met	Val	Asp	Thr	Arg	Gly	Gln	Pro
			100					105					110		
Trp	Thr	Gln	Thr	Leu	Gln	Leu	Lys	Val	Tyr	Asp	Ala	Val	Pro	Arg	Pro
			115					120					125		
Val	Val	Gln	Val	Phe	Ile	Ala	Val	Glu	Arg	Asp	Ala	Gln	Pro	Ser	Lys
			130			135					140				
Thr	Cys	Gln	Val	Phe	Leu	Ser	Cys	Trp	Ala	Pro	Asn	Ile	Ser	Glu	Ile
145					150					155				160	
Thr	Tyr	Ser	Trp	Arg	Arg	Glu	Thr	Thr	Met	Asp	Phe	Gly	Met	Glu	Pro
				165					170					175	
His	Ser	Leu	Phe	Thr	Asp	Gly	Gln	Val	Leu	Ser	Ile	Ser	Leu	Gly	Pro
			180					185					190		
Gly	Asp	Arg	Asp	Val	Ala	Tyr	Ser	Cys	Ile	Val	Ser	Asn	Pro	Val	Ser
		195					200					205			
Trp	Asp	Leu	Ala	Thr	Val	Thr	Pro	Trp	Asp	Ser	Cys	His	His	Glu	Ala
						215					220				
Ala	Pro	Gly	Lys	Ala	Ser	Tyr	Lys	Asp	Val	Leu	Val	Val	Val	Val	Pro
225					230					235					240
Val	Ser	Leu	Leu	Leu	Met	Leu	Val	Thr	Leu	Phe	Ser	Ala	Trp	His	Trp
				245					250					255	
Cys	Pro	Cys	Ser	Gly	Lys	Lys	Lys	Lys	Asp	Val	His	Ala	Asp	Arg	Val
			260					265					270		
Gly	Pro	Glu	Thr	Glu	Asn	Pro	Leu	Val	Gln	Asp	Leu	Pro			
			275				280					285			

<210> 511
 <211> 376
 <212> PRT
 <213> Homo sapiens
 <400> 511

Met	Asn	His	Ser	Glu	Arg	Phe	Val	Phe	Ile	Ala	Glu	Trp	Tyr	Asp	Pro
1				5					10					15	
Asn	Ala	Ser	Leu	Leu	Arg	Arg	Tyr	Glu	Leu	Leu	Phe	Tyr	Pro	Gly	Asp
			20					25					30		
Gly	Ser	Val	Glu	Met	His	Asp	Val	Lys	Asn	His	Arg	Thr	Phe	Leu	Lys
			35				40					45			
Arg	Thr	Lys	Tyr	Asp	Asn	Leu	His	Leu	Glu	Asp	Leu	Phe	Ile	Gly	Asn
	50				55						60				
Lys	Val	Asn	Val	Phe	Ser	Arg	Gln	Leu	Val	Leu	Ile	Asp	Tyr	Gly	Asp
65					70				75					80	
Gln	Tyr	Thr	Ala	Arg	Gln	Leu	Gly	Ser	Arg	Lys	Glu	Lys	Thr	Leu	Ala
			85					90					95		
Leu	Ile	Lys	Pro	Asp	Ala	Ile	Ser	Lys	Ala	Gly	Glu	Ile	Ile	Glu	Ile
			100				105					110			
Ile	Asn	Lys	Ala	Gly	Phe	Thr	Ile	Thr	Lys	Leu	Lys	Met	Met	Met	Leu
			115				120					125			

Ser Arg Lys Glu Ala Leu Asp Phe His Val Asp His Gln Ser Arg Pro
 130 135 140
 Phe Phe Asn Glu Leu Ile Gln Phe Ile Thr Thr Gly Pro Ile Ile Ala
 145 150 155 160
 Met Glu Ile Leu Arg Asp Asp Ala Ile Cys Glu Trp Lys Arg Leu Leu
 165 170 175
 Gly Pro Ala Asn Ser Gly Val Ala Arg Thr Asp Ala Ser Glu Ser Ile
 180 185 190
 Arg Ala Leu Phe Gly Thr Asp Gly Ile Arg Asn Ala Ala His Gly Pro
 195 200 205
 Asp Ser Phe Ala Ser Ala Ala Arg Glu Met Glu Leu Phe Phe Pro Ser
 210 215 220
 Ser Gly Gly Cys Gly Pro Ala Asn Thr Ala Lys Phe Thr Asn Cys Thr
 225 230 235 240
 Cys Cys Ile Val Lys Pro His Ala Val Ser Glu Gly Leu Leu Gly Lys
 245 250 255
 Ile Leu Met Ala Ile Arg Asp Ala Gly Phe Glu Ile Ser Ala Met Gln
 260 265 270
 Met Phe Asn Met Asp Arg Val Asn Val Glu Glu Phe Tyr Glu Val Tyr
 275 280 285
 Lys Gly Val Val Thr Glu Tyr His Asp Met Val Thr Glu Met Tyr Ser
 290 300
 Gly Pro Cys Val Ala Met Glu Ile Gln Gln Asn Asn Ala Thr Lys Thr
 305 310 315 320
 Phe Arg Glu Phe Cys Gly Pro Ala Asp Pro Glu Ile Ala Arg His Leu
 325 330 335
 Arg Pro Gly Thr Leu Arg Ala Ile Phe Gly Lys Thr Lys Ile Gln Asn
 340 345 350
 Ala Val His Cys Thr Asp Leu Pro Glu Asp Gly Leu Leu Glu Val Gln
 355 360 365
 Tyr Phe Phe Lys Ile Leu Asp Asn
 370 375

<210> 512

<211> 27

<212> DNA

<213> Homo sapiens

<400> 512

ccctcaccct gggtctggaa tcctcag

27

<210> 513

<211> 19

<212> DNA

<213> Homo sapiens

<400> 513

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